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In The

Supreme Court

of the United States

October Term, 1996

POLY-TECH INDUSTRIES, INC.,

Petitioner,

v.

INSTY*BIT, INC.,

Respondent.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

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APPENDIX VOLUME I TO PETITION FOR WRIT OF CERTIORARI

Edwin Edgar Voigt, II, Esquire
Douglas J. Christensen, Esquire
Paul Lloyd Sjoquist, Esquire
Counsel of Record
PALMATIER, SJOQUIST,
HELGET & VOIGT, P.A.
6600 France Avenue, S.
Suite 501
Minneapolis, MN 55435
(612) 922-6600

APPELLATE SERVICE: CURRY & TAYLOR (800) 222-8738

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United States Court of Appeals

For the Eighth Circuit

No. 95-2260

Insty*Bit, Inc.,

Appellant,

v.

Appeal from the United States District Court for the District of Minnesota

Poly-Tech Industries, Inc.,

Appellee.

Submitted: December 13, 1995

Filed: September 10, 1996

Before McMILLIAN, JOHN R. GIBSON and BEAM, Circuit Judges.

McMILLIAN, Circuit Judge.

Insty*Bit, Inc. (Insty*Bit) appeals from a final order entered in the United States District Court for the District of Minnesota granting summary judgment in favor of Poly-Tech Industries, Inc. (Poly-Tech) on Insty*Bit's claim of trade dress infringement in violation of § 43(a) of the Lanham Act, 15 U.S.C. Secs. 1125. (1) Insty*Bit, Inc. v. Poly-Tech Indus., Inc., No. 3-94-1427 (D. Minn. Apr. 26, 1995) (Memorandum and Order). For reversal, Insty*Bit argues the district court erred in holding that Insty*Bit had failed to create a genuine issue of material fact with respect to its trade dress infringement claim under 15 U.S.C. § 1125.[1] For the reasons discussed below, we reverse the judgment of the district court and remand the case to the district court for further proceedings consistent with this opinion.

I. Background

Insty*Bit is a Minnesota corporation located in Minneapolis, Minnesota. It designs, assembles, and

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[1] Insty*Bit also raised the following state law claims pursuant to 28 U.S.C. § 1367(a): (1) violation of Minn. Stat. Secs. 325D.44 et seq. (the Minnesota Deceptive Trade Practices Act); (2) common law fraud; (3) negligent misrepresentation; (4) breach of fiduciary duty; and (5) unjust enrichment. After granting summary judgment in favor of Poly-Tech on the Lanham Act claim, the district court declined to exercise supplemental jurisdiction over these state law claims and dismissed them without prejudice. See slip op. at 15-16.

sells quick-change drill chucks[2] and related accessories, including drill bits, countersinks, and drill guides.

Poly-Tech, also a Minnesota corporation located in Minneapolis, operates primarily as a "job shop" for the manufacture of component parts for other entities. Between 1988 and August 1994, Poly-Tech manufactured component parts for Insty*Bit's products to Insty*Bit's specifications. Insty*Bit would then assemble these components with other parts to produce the quick-change drill chuck and related accessories.

In late 1989, Insty*Bit granted Poly-Tech permission to sell Insty*Bit products, along with the products of other manufacturers, through woodworking trade shows and magazine advertisements. Although Insty*Bit contends that it gave Poly-Tech an exclusive limited sales territory in three eastern states and specified the trade shows at which Poly-Tech could sell Insty*Bit's products, Poly-Tech maintains that Insty*Bit placed no restrictions on its sales territory or methods. It is undisputed, however, that Poly-Tech sold Insty*Bit products in various advertisements and woodworking shows until August 1994. At the same time, Insty*Bit also engaged in "private labeling" with several national distributors of woodworking products. Specifically, it allowed four distributors to sell Insty*Bit's products in connection with another company's brand name. According to Insty*Bit, it has eight national

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[2] A quick-change drill chuck allows the user to change bits and drivers in a portable drill without a chuck key.

distributors of its products. In addition to the four distributors which sell Insty*Bit's products under another brand name, two distributors sell unmarked products, and two others sell them under Insty*Bit's label.

In 1993, Poly-Tech developed its own quick-change drill chuck. Poly-Tech filed a patent application for this quick-change chuck with the United States Patent Office on December 23, 1993, and a patent (No. 5,398,946) was subsequently issued on March 21, 1995. II Poly-Tech App. at 309. In August 1994, Poly-Tech informed Insty*Bit that it was adding its own brand of quick-release drills and accessories, under the name "Snappy," to its product line. Shortly thereafter, Insty*Bit ceased placing orders for Insty*Bit component parts and instructed Poly-Tech not to sell Insty*Bit products in the future.

On October 14, 1994, Insty*Bit instituted the present suit against Poly-Tech in the United States District Court for the District of Minnesota, alleging trade dress infringement under § 43(a) of the Lanham Act, 15 U.S.C. §§ 1125, violation of Minn. Stat. § 325D.44 et seq. (the Minnesota Deceptive Trade Practices Act); common law fraud; negligent misrepresentation, breach of fiduciary duty, and unjust enrichment. Insty*Bit sought damages, preliminary and permanent injunctive relief, and attorney's fees. Poly-Tech then filed a counterclaim for sanctions pursuant to Fed. R. Civ. P. 11, Minn. R. Civ. P. 11, and Minn. Stat. §§ 549.21. Upon motion by Poly-Tech, the district court granted summary judgment in favor of Poly-Tech on Insty*Bit's Lanham

Act claim and dismissed Insty*Bit's state law claims without prejudice pursuant to 28 U.S.C. §§ 1367(c)(3). See slip op. at 2, 17.[3] Insty*Bit then filed this timely appeal.

II. Discussion

A. Standard of Review

We review a grant of summary judgment de novo. The question before the district court, and this court on appeal, is whether the record, when viewed in the light most favorable to the non-moving party, shows that there is no genuine issue as to any material fact and that the moving party is entitled to summary judgment as a matter of law. Fed. R. Civ. P. 56(c); see, e.g., Celotex Corp. v. Catrett, 477 U.S. 317, 322-23 (1986); Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 249-50 (1986); Get Away Club, Inc. v. Coleman, 969 F.2d 664, 666 (8th Cir. 1992); St. Paul Fire & Marine Ins. Co. v. FDIC, 968 F.2d 695, 699 (8th Cir. 1992). Where the unresolved issues are primarily legal rather than factual, summary judgment is particularly appropriate. Crain v. Board of Police Comm'rs, 920 F.2d 1402, 1405-06 (8th Cir. 1990).

B. Lanham Act Claim

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[3] The district court also denied on mootness grounds Insty*Bit's motion for a preliminary injunction and its motion to dismiss Poly-Tech's counterclaim. See slip op. at 2, 17.

Section 43(a)[4] of the Lanham Act, 15 U.S.C. §§ 1125(a)(1), creates a federal cause of action for trade dress infringement. The trade dress of a product is the "total image of a product, the overall impression created, not the individual features." Aromatique, Inc. v. Gold Seal, Inc., 28 F.3d 863, 868 (8th Cir. 1994) (Aromatique); Woodsmith Publishing Co. v. Meredith Corp., 904 F.2d 1244, 1247 (8th Cir. 1990)

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[4] Section 43(a) of the Lanham Act, 15 U.S.C. §§ 1125(a)(1), provides in pertinent part:

> (1) Any person who, on or in connection with any goods or services, or any container for goods, uses in commerce any word, term, name, symbol, or device, or any combination thereof, or any false designation of origin, false or misleading description of fact, or false or misleading representation of fact, which --
>
> (A) is likely to cause confusion, or to cause mistake, or to deceive as to the affiliation, connection, or association of such person with another person, or as to the origin, sponsorship, or approval or his or her goods, services, or commercial activities by another person, or
>
> (B) in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of his or her or another person's goods, services, or commercial activities, shall be liable in a civil action by any person who believes that he or she is or is likely to be damaged by such act.

(Woodsmith). A trade dress is entitled to protection under §§ 43(a) of the Lanham Act if: (1) it is inherently distinctive or has acquired distinctiveness through secondary meaning; (2) it is primarily nonfunctional; and (3) its imitation would result in a likelihood of confusion in consumers' minds as to the source of the product. See Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763, 769 (1992) (Two Pesos). With respect to the third prong of this analysis, we established in Co-Rect Prods, Inc. v. Marvy! Advertising Photography, Inc., 780 F.2d 1324, 1330 (8th Cir. 1985) (Co-Rect), that the following six factors are to be considered in determining whether a likelihood of confusion exists: (1) the strength of the owner's mark; (2) the similarity between the owner's mark and the alleged infringer's mark; (3) the degree to which the products compete with each other; (4) the alleged infringer's intent to "pass off" its goods as those of the owner; (5) incidents of actual confusion; and (6) the type of product, its costs, and conditions of purchase.[5] Insty*Bit alleged before the district court that

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[5] In Co-Rect we considered the likelihood of confusion issue with respect to trademark, rather than trade dress, infringement. In light of the Supreme Court's holding in Two Pesos, 505 U.S. at 774-76, that there is no textual basis for applying different analyses to the protection of trademarks and trade dress under section 43(a) of the Lanham Act, we conclude that the six Co-Rect factors also govern claims of trade dress infringement. Cf. Aromatique, 28 F.3d at 868 ("The difference between trade dress and trademark is no longer of importance in determining whether trade dress is protected by federal law").

Poly-Tech had copied the trade dress of Insty*Bit's products in manufacturing the Snappy line of quick-change drill chuck, countersink and drill guide.[6] The district court held that Insty*Bit had failed as a

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[6] Specifically, Insty*Bit contended that Poly-Tech had infringed upon the following trade dress of Insty*Bit products:

> Quick-change chuck - "the combination of the color black; the shape of the shank; the size and dimensions of the sleeve; and the chamfered edge - raised knurled band - recessed smooth band raised knurled band appearance of the chuck sleeve";
>
> Drill guide - the combination of the color black; the steel colored bit; the exposed spring; the shape and style of the set screw and opening; and the shape of the opening for receiving the shank in the collar;
>
> Countersink - the combination of the color black; the shape and style of the set screw and opening; the use of two flutes; the shape of the collar; the raised edge on the countersinking portion; the overall size and dimensions; and the shape of the opening for receiving the shank in the collar.

Slip op. at 8-9.

matter of law to create a genuine issue of material fact regarding the likelihood of consumer confusion as to the source of the Snappy brand products. Slip op. at 10-15. The district court opined that "[a]lthough the Insty*Bit products and the Snappy products compete in the same market, independent application of the six Co-Rect factors is unnecessary in this case." Id. at 10. The district court then conducted a visual inspection of the packaging of the Snappy and Insty*Bit products and determined that the "packaging designs are so graphically dissimilar that there is no reasonable likelihood that consumers would confuse a Snappy brand product with the Insty*Bit product." Id. at 11.[7]

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[7] The district court observed:

> Poly-Tech has left no doubt as to the source of the Snappy brand products. . . The words "Snappy™" appear in large letters prominently displayed on the front of the Snappy packages for each of the three products claimed to violate §§ 1125. Indeed, the brand name "Snappy" appears in bold letters nine times on the Snappy quick-release chuck package and in bold letters six times on each of the Snappy countersink and drill guide packages. "Snappy" is also permanently embossed on the face of each of the components themselves, and the embossed imprint is visible through clear plastic "bubble" packaging. Each Snappy package also contains the name "Poly-Tech Ind." along with its mailing address . . . The front face of each of the

In determining that there was no likelihood of confusion regarding the source of the products at issue, the district court declined to give weight to a survey offered by Insty*Bit of approximately one hundred potential quick-change drill customers. Id. at 13-15.[8]

> Snappy packages is solid purple with white lettering and yellow accent highlighting.
>
> In contrast, the front . . .[and back] face[s] of the Insty*Bit product packages contai[n], in large, bold letters the word "INSTY-BIT." . . . The front of these packages is solid white, not purple. . . Based on the "total presentation" of the Snappy brand products to the consumer, there is no reasonable likelihood of confusion as to their source.

Slip op. at 11-12.

[8] The expert retained by Insty*Bit surveyed 102 consumers who had used a portable drill within the past three months. Fifty-four percent of the consumers were professional woodworkers, and forty- six percent were amateurs. The survey expert showed each participating consumer both unpackaged and packaged quick-change drill products manufactured by Snappy, Insty*Bit, and Vermont American (a competing manufacturer). The consumer was allowed to examine and hold the products but was not permitted to use them or to determine how they functioned. The expert then asked the consumer whether any of the products were "so similar or such a satisfactory match" that he

The survey expert had found that a statistically significant number of the respondents interviewed would purchase the Snappy brand products as a satisfactory match to Insty*Bit's. See Report of Jeffrey Stitt; Insty*Bit App. at 257. The district court, however, held that the fact that a statistically significant number of consumers would substitute the Snappy brand products for Insty*Bit's was "irrelevant" to the likelihood of confusion issue, because "the issue here is not whether consumers would substitute the defendant's product for the plaintiff's nor is it whether the products are similar; the issue is whether consumers would likely purchase the defendant's product mistakenly thinking it was manufactured by the plaintiff." Slip op. at 14-15. Similarly, the district court also rejected as non-probative the portion of the survey which tested consumer confusion with respect to unpackaged Snappy and Insty*Bit quick-change systems. Consumer reactions to the unpackaged product bore no relevance to the likelihood of confusion issue, the district court reasoned, because "to determine whether a substantial likelihood of confusion exists under §§ 1125, the product must be considered in its totality as it is presented to the average consumer -- which in this case is to say in . . .[packaged form]." Id. at 14. Based on its visual inspection of the packages, the district court found that the conspicuous placement of the "Snappy" letters on Poly-Tech's products made it highly unlikely that the average consumers would buy

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or she would buy one as a substitute for the other. See Jeffrey Stitt Aff. II ¶¶ 15, 20, 24; Insty*Bit App. at 394-96.

Snappy brand products mistakenly thinking that they were manufactured by Insty*Bit. See id. at 14-15. Therefore, finding no genuine issue of material fact regarding the third prong of the §§ 1125 analysis, the district court held that Poly-Tech was entitled to summary judgment on Insty*Bit's Lanham Act claim. Id. at 15.

For reversal, Insty*Bit argues that the district court erred in granting summary judgment in favor of Poly-Tech on its Lanham Act claim in three respects. First, Insty*Bit maintains that the district court's failure to apply the six Co-Rect factors constitutes error as a matter of law. Noting our observation in Squirtco v. The Seven-Up Co., 628 F.2d 1086, 1091 (8th Cir. 1980), that resolution of the likelihood of confusion issue "does not hinge on a single factor but requires a consideration of numerous factors to determine whether under all the circumstances there is a likelihood of confusion," Insty*Bit contends the district court erred in relying exclusively on its own inspection of the Snappy and Insty*Bit packages, rather than applying the six Co-Rect factors for determining the existence of a likelihood of confusion under 15 U.S.C. §§ 1125.

Second, Insty*Bit argues that the district court's exclusive reliance on the packaging of Insty*Bit and Poly-Tech's quick-change drill products was also misplaced because such packaging designs are relevant only to the issue of point-of-sale confusion. Arguing that the Lanham Act prohibits post-sale as well as point-of-sale confusion, e.g., Computer Care v. Service Sys. Enterprises, Inc., 982 F.2d 1063, 1070 (7th Cir.

1992), Insty*Bit maintains that there is a genuine factual issue concerning the likelihood of post-sale confusion, because prospective purchasers are often first exposed to its products in the hands of another individual after the packaging has been discarded; such purchasers, Insty*Bit argues,"typically go the store looking for a product they have seen before and try to look past' the packaging to match the product with the one they are seeking." Brief for Appellant at 26-27. According to Insty*Bit, the strong similarity in the appearance of the unpackaged Insty*Bit and Poly-Tech product creates a genuine issue of material fact as to whether consumers would likely be confused as to the source of the Snappy brand products to preclude entry of summary judgment in favor of Poly-Tech.

Finally, Insty*Bit challenges the district court's determination that the consumer survey had no probative value concerning the likelihood of confusion. Reiterating its argument that consumers are frequently exposed to quick-change products in unpackaged form, Insty*Bit contends that the survey expert's conclusion -- that a statistically significant number of respondents would buy the Snappy line of quick-change products as a satisfactory match to Insty*Bit's -- demonstrates a genuine issue of material fact as to whether consumers would likely be confused as to the origins of the Snappy brand products.

Poly-Tech responds, first, that although the district court did not recite each of the six Co-Rect factors in its memorandum and order, it considered all the factors in reaching its conclusion that "there is no confusion to the source of the Snappy brand products, . . .[and] [n]o evidence suggests that Snappy has

confused consumers into thinking its components were made by Insty*Bit." Slip op. at 11-12. Second, addressing Insty*Bit's argument that the district court improperly placed exclusive reliance on its own inspection of the packaging of the respective products, Poly-Tech cites Woodsmith, 904 F.2d at 1250, for the proposition that a district court may visually review documentary evidence in determining whether there is a likelihood of confusion in a trade dress infringement action. Similarly, Poly-Tech argues that its prominent trade name labeling on both the Snappy packages and actual products precludes a finding that there is a genuine issue of material fact regarding the likelihood of confusion.

Finally, Poly-Tech contends that the district court did not err in disregarding the results of the consumer survey submitted by Insty*Bit. According to Poly-Tech, the survey was flawed because, among other reasons, (1) it did not adequately define the sample of respondents; (2) it exposed respondents to the unpackaged products; and (3) it asked biased, irrelevant questions. Brief for Appellee at 30. Thus, Poly-Tech argues that the district court correctly found that the survey had no probative value with respect to the likelihood of consumer confusion. In sum, Poly-Tech argues that the district court did not err in entering summary judgment in its favor on Insty*Bit's trade dress infringement claim. We disagree.

We hold that the district court erred as a matter of law in failing to apply the six Co-Rect factors to determine the likelihood of consumer confusion. Contrary to Poly-Tech's argument, it is not clear from the district court's memorandum and order that it

analyzed all the Co-Rect factors in concluding that there was no genuine issue of material fact regarding the likelihood of confusion.

We further hold that the district court erred in placing primary, if not exclusive, weight on its visual examination of the packaging of the Snappy and Insty*Bit products. Regarding this issue, Poly-Tech's reliance on Woodsmith is misplaced. In Woodsmith, we affirmed a district court's grant of summary judgment in favor of a defendant magazine publisher in a trade dress infringement action brought under section 43(a) of the Lanham Act. See 904 F.2d at 1250. The district court had found that no genuine issue of material fact existed regarding the likelihood of confusion. In upholding this determination, we examined the photographs and original facsimiles of the magazines and solicitation mailings published by each party. See id. at 1249-50. We declared that "[v]isual inspection is permissible as an aid to a district court's determination of likelihood of confusion, but should not constitute the sole basis for the conclusions made."Id. at 1250. Thus, visual inspection may not replace an application of the Co-Rect factors in determining whether a likelihood of confusion exists.

Upon careful de novo review, we hold that Insty*Bit has presented sufficient evidence of the likelihood of confusion to withstand Poly-Tech's motion for summary judgment. As noted above, the following six factors must be considered in determining whether a likelihood of confusion exists: (1) the strength of the owner's mark; (2) the similarity between the owner's trade dress and the alleged infringer's trade dress; (3) the degree to which the

products compete with each other; (4) the alleged infringer's intent to "pass off" its goods as those of the trade dress owner; (5) incidents of actual confusion; and (6) the type of product, its costs and conditions of purchase. See Co-Rect, 780 F.2d at 1330. We consider each factor in turn, noting that although no one factor is determinative, each must be analyzed. See Duluth News-Tribune v. Mesabi Publishing Co., 84 F.3d 1093, 1096 (8th Cir. 1994) (Duluth) ("[t]hese factors do not operate in a mathematically precise formula; rather, we use them at the summary judgment stage as a guide to determine whether a reasonable jury could find a likelihood of confusion").

First, Insty*Bit has demonstrated the strength of its trade dress. Insty*Bit's quick-change drill products have received favorable reviews from several woodworking magazines and nationally televised home-improvement programs. See Insty*Bit App. at 112, 115-120. In addition, Insty*Bit's consumer survey showed that over thirty-eight percent of the respondents were familiar with Insty*Bit. See id. at 388.

Second, Insty*Bit showed there are similarities in trade dress between the Insty*Bit and Snappy quick-change products. Poly-Tech contends that its Snappy brand shank does not resemble the shank of Insty*Bit's quick-change chuck, because the Snappy chuck does not have the same prominent enlarged collar portion as Insty*Bit's. In addition, although it concedes that its Snappy line of quick-change products are black (the same color as Insty*Bit's), Poly-Tech alleges that the similarity is due to functionality

because Snappy brand products are treated with black oxide in order to prevent rusting, "as all the other competitive quick-release chucks also are." Brief for Appellee at 24. Insty*Bit, however, has presented evidence that the quick-change products of competing manufacturers have coatings other than black oxide which also provide a rust-inhibiting benefit. See Insty*Bit App. at 399-400. Moreover, Insty*Bit has demonstrated sufficient similarity in the shape and design of the Snappy and Insty*Bit quick-change drill products -- such as the combination of a raised knurled band, a recessed smooth band, and another raised knurled band on the quick-change chucks -- to create a genuine issue of material fact as to whether the second Co-Rect factor has been satisfied.

As to the degree to which the products compete with each other, we note that both parties agree that their products are sold through similar distribution means. See Brief for Appellant at 24; Brief for Appellee at 25. The target purchasers are the same for both sets of products, and the products are comparably priced. See Insty*Bit App. at 65.1-66.1; 113. Thus, the competition between the Insty*Bit and Snappy products is not beyond genuine dispute.

The fourth Co-Rect factor concerns the alleged infringer's intent to "pass off" its goods as those of the plaintiff. Co-Rect, 780 F.2d at 1330. Evidence submitted by Insty*Bit showed that when Poly-Tech began marketing its Snappy line of quick-change products, it solicited the same customers and distributors to whom it had previously sold Insty*Bit's products. See Insty*Bit App. at 87-90.

We also observe that the inference of intent is strengthened when the parties have had a prior relationship, because "[s]uch a relationship provides evidence of the alleged infringer's intent to trade on the plaintiff's goodwill." Beer Nuts, Inc. v. Clover Club Foods Co., 805 F.2d 920, 927 (10th Cir. 1986). In the present case, Poly-Tech sold Insty*Bit's products through woodworking trade shows and magazine advertisements between 1989 and 1994. See Insty*Bit App. at 158; I Poly-Tech App. at 107. This fact creates a genuine issue of material fact regarding the fourth Co-Rect factor, particularly when it is combined with evidence in the record contradicting Poly-Tech's suggestion that it could not have changed certain features affecting the external appearance of its quick-change products to differentiate them more markedly from Insty*Bit's.

With respect to the fifth Co-Rect factor -- incidents of actual confusion -- we find that the consumer survey presented by Insty*Bit is probative on this issue. In Woodsmith, 904 F.2d at 1249, we stated that surveys may provide useful evidence of the likelihood of confusion, although they are not required for such a determination. See id. Insty*Bit's survey was designed, conducted, and interpreted by an experienced market researcher. The expert's conclusion that "a statistically significant number of consumers would purchase Snappy as a satisfactory match for Insty*Bit" raises a genuine issue of material fact regarding the likelihood of confusion. Although the district court found the survey flawed because the expert did not ask consumers whether they would likely purchase Snappy's products mistakenly thinking

they were manufactured by Insty*Bit, such a question was not necessary to the methodological soundness of the survey. To the contrary, it is well-settled that a finding of trade dress infringement does not require consumers to buy the alleged infringer's products thinking that they were manufactured by the plaintiff; rather, all that is necessary is that they purchase the alleged infringer's products after associating the trade dress of those products with the trade dress of a single, albeit anonymous source. See, e.g., Tone Bros., Inc. v. Sysco Corp., 28 F.3d 1192, 1204 (Fed Cir. 1994) (Tone Bros.) (plaintiff spice manufacturer in trade dress infringement action had raised genuine issue of material fact as to whether there was association in mind of consumer between container's shape and appearance and indication of the source for the spices inside the container, thereby precluding summary judgment in favor of defendant). In addition, we note that most of Poly-Tech's arguments concerning the flaws in the survey (e.g., the definition of the sample and the form of questions asked) do not render the issue of actual confusion beyond genuine dispute, rather, they go to the weight the trier of fact should place on the survey's results.

Furthermore, the portion of the survey exposing consumers to the unpackaged Snappy and Insty*Bit quick-change systems is probative on the likelihood of confusion issue, because the Lanham Act protects post-sale as well as point-of-sale confusion. See Payless Shoe Source, Inc v. Reebok Int'l Ltd., 998 F.2d 985, 989-90 (Fed. Cir. 1993) (Payless); Keds Corp. v. Renee Int'l Trading Corp., 888 F.2d 215, 222 (1st Cir. 1989); Lois Sportswear, U.S.A., Inc. v. Levi Strauss & Co., 799 F.2d 867, 872 (2d Cir. 1986) (Lois Sportswear).

"Post-sale confusion" refers to the association consumers might make between the allegedly infringing item and the familiar product, thereby influencing their purchasing decisions. Lois Sportswear, 799 F.2d at 872-73. The Lanham Act's protection of post-sale confusion stems from the 1962 amendment to §§ 32 of the Act, 15 U.S.C. §§ 1114(1), which provides remedies for the infringement of registered trademark. Pub. L. No. 87-772, 76 Stat.769, 773 (1962). The 1962 amendment included confusion of nonpurchasers as well as direct purchasers by eliminating language in §§ 32 which had restricted the scope of trademark infringement to confusion of "purchasers as to the source of origin of such goods or services." 76 Stat. at 773. Thus, an action for trademark infringement may be based on confusion of consumers other than direct purchasers, including observers of an allegedly infringing product in use by a direct purchaser. See Payless, 998 F.2d at 989; Lois Sportswear, 799 F.2d at 872-73. Although §§ 32 of the Lanham Act protects registered trademarks, rather than trade dress, the Supreme Court's holding in Two Pesos, 505 U.S. at 774-76, that the same analyses apply to the protection of trademarks and trade dress under §§ 43(a) of the Act leads us to conclude that the likelihood of post-sale confusion may be considered in trade dress infringement actions. See Payless, 998 F.2d at 989-90 (holding that district court, in determining whether accused shoes infringed footwear manufacturer's trademarks and trade dress, had abused its discretion in failing to consider adequately the extent of post-sale confusion between the competing footwear). Post-sale confusion is at issue in the present case because Insty*Bit has demonstrated that consumers are often

first exposed to its products in use (that is, outside of the package) and then go to a distributor to find these tools by attempting to match the products on the shelves with the ones they are seeking. See Jeffrey Stitt Aff. ¶17; Insty*Bit App. at 394-95. We therefore find a genuine issue of material fact as to actual confusion.

The final Co-Rect factor for assessing the likelihood of confusion is the type of product, its costs, and conditions of purchase. Co-Rect, 780 F.2d at 1330. Although Poly-Tech does not address this factor in its brief, Insty*Bit alleges that the quick-change drill products are inexpensive and are not the type of products over which consumers devote substantial time in making purchasing decision. Such factors, if found to be true by the trier of fact, would weigh in favor of a conclusion that a likelihood of confusion exists.

In sum, our application of the Co-Rect factors to the present case leads us to conclude that the likelihood of consumer confusion is not beyond genuine dispute.

Poly-Tech also argues, however, that it is entitled to summary judgment because Insty*Bit failed to demonstrate a genuine issue of material fact with respect to the other two elements of a trade dress infringement claim under 15 U.S.C. §§ 1125. Specifically, Poly-Tech contends that Insty*Bit's trade dress is not entitled to protection under §§ 1125 because (1) it is not inherently distinctive and has not acquired distinctiveness through secondary meaning and (2) it is merely functional, rather than non-functional.[9] As discussed below, we find that a

genuine issue of material fact exists as to each of these elements.

In determining whether a trade dress or trademark is sufficiently distinctive to be entitled to protection under the Lanham Act, we have classified it as (1) arbitrary or fanciful,[10] (2) suggestive,[11] (3) descriptive,[12] or (4) generic.[13] Duluth, 84 F.3d at 1096; Stuart Hall Co. v. Ampad Corp., 51 F.3d 780, 785 (8th Cir. 1995)(Stuart Hall); Abercrombie & Fitch Co. v.

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[9] The district court did not address these issues in its Memorandum and Order granting summary judgment in favor of Poly-Tech.

[10] The Second Circuit explained in Abercrombie that the term "fanciful," as a classifying concept, is usually applied to marks invented solely for their use as trademarks or trade dress. See Abercrombie, 537 F.2d at 11 n.12. When a common mark is applied in an unfamiliar way as a trademark or trade dress, the use is called "arbitrary." Id.

[11] A suggestive mark is "one that requires some measure of imagination to reach a conclusion regarding the nature of the product." Duluth, 84 F.3d at 1096.

[12] A descriptive trademark or trade dress "immediately conveys the nature or function of a product." Id.

[13] A generic trademark or trade dress "refer[s] to the genus of which the particular product is a species." Two Pesos, 505 U.S. at 768.

Hunting World, Inc., 537 F.2d 4, 9-11 (2d Cir. 1976) (Abercrombie). An arbitrary, fanciful, or suggestive mark is deemed inherently distinctive, and therefore entitled to protection, because its "intrinsic nature serves to identify a particular source of a product." Two Pesos, 505 U.S. at 768. By contrast, a descriptive mark merits protection only if it has become distinctive by acquiring a secondary meaning.[14] Duluth, 84 F.3d at 1096. Finally, a generic term is not protected by the Lanham Act, because it is merely used by the general public to identify a category of goods. Id. Thus, a determination of inherent distinctiveness turns on "whether or not the trade dress is of such a design that a buyer will immediately rely on it to differentiate the product from those of competing manufacturers." Tone Bros., 28 F.3d at 1206.

Viewing the evidence in a light most favorable to Insty*Bit, a genuine issue of material fact exists as to both inherent distinctiveness and secondary meaning. First, Insty*Bit has submitted the declarations of a retailer, two sales representatives, and a private label distributor that the design of Insty*Bit's products was unique when introduced. See Insty*Bit App. at 111, 241, 246, 248. Such evidence creates a genuine issue of material fact concerning the inherent distinctiveness of Insty*Bit's trade dress because a reasonable trier of fact could find that the

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[14] A trademark or trade dress has acquired secondary meaning if it has "by long and exclusive use and advertising . . . become so associated in the public mind with such goods . . . that it serves to identify them and distinguish them from other goods." Stuart Hall, 51 F.3d at 789.

trade dress is arbitrary, fanciful, or suggestive. Similarly, whether the trade dress has acquired secondary meaning is not beyond genuine dispute, in light of evidence that (1) Insty*Bit's products have a six-year record of advertising and promotion in the marketplace and (2) consumers associate the appearance of Insty*Bit's products with a particular manufacturer. Id. at 111-12, 156, 241, 246.

Finally, Poly-Tech contends that it is entitled to summary judgment because the design features of Insty*Bit's quick-change products are functional and therefore not entitled to trade dress protection. We have adopted the following test for functionality:

> If the particular feature is an important ingredient in the commercial success of the product, the interests in free competition permits [sic] its imitation in the absence of a patent or copyright. On the other hand, where the feature, or more aptly, design, is a mere arbitrary embellishment, a form of dress for the goods primarily adopted for purposes of identification and individuality, and hence, unrelated to basic consumer demand in connection with the product, imitation may be forbidden where the requisite showing of secondary meaning is made. Under such circumstances, since effective competition may be undertaken without imitation, the law grants protection.

Stuart Hall, 51 F.3d at 790 (quoting Aromatique, 28 F.3d at 873). Thus, trade dress is nonfunctional "if it is an arbitrary embellishment primarily adopted for purposes of identification and individuality." Aromatique, 28 F.3d at 873. In assessing functionality, the appropriate inquiry is whether the collection of design elements, taken as a whole, are functional, not whether individual elements of the trade dress could be categorized as such. See Hartford House, Ltd. v. Hallmark Cards, Inc., 846 F.2d 1268, 1272 (10th Cir.) (Hartford House), cert. denied, 488 U.S. 908 (1988); Fuddruckers, Inc. v. Doc's B.R. Others, Inc., 826 F.2d 837, 842 (9th Cir. 1987). In the present case, we find a genuine issue of material fact exists regarding the functionality issue. Although Poly-Tech argues that the exterior design of Insty*Bit's quick-change products -- including the color black and the appearance of the sleeve and shank -- are primarily functional because they remain necessary to the commercial success of these products, Insty*Bit has presented evidence that competing manufacturers have adopted different design features for their quick-change products. See Insty*Bit App. at 23-24, 162-666; 244-45. Thus, a genuine issues of material fact exists as to whether or not the design of Insty*Bit's quick-change products is functional. Poly-Tech is not entitled to summary judgment on this issue.

III. Conclusion

Based upon the foregoing, we hold that the district court erred in granting summary judgment in favor of Poly-Tech on the basis that Insty*Bit had failed to demonstrate a genuine issue of material fact

with respect to its trade dress infringement action. Accordingly, the judgment of the district court is reversed and the case is remanded for further proceedings consistent with this opinion.

A true copy.

Attest:

CLERK, U.S. COURT OF APPEALS, EIGHTH CIRCUIT.

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
THIRD DIVISION

Insty*Bit, Inc.,

Plaintiff

vs.

Civil No. 3-94-1427
MEMORANDUM
OPINION AND
ORDER

Poly-Tech Industries, Inc.,

Defendant.

Alan M. Anderson and Renee L. Jackson, Larkin, Hoffman, Daly & Lindgren, Ltd., Minneapolis, Minnesota, for Plaintiff

Paul L. Sjoquist, Edwin E. Voigt II and Douglas J. Christensen, Palmatier, Sjoquist & Helget, P.A., Minneapolis, Minnesota, for Defendant.

Introduction

Plaintiff Insty*Bit, Inc. ("Insty*Bit") commenced this action against Defendant Poly-Tech Industries, Inc. ("Poly-Tech") alleging trade dress infringement under the Lanham Act § 43(a), codified at 15 U.S.C. § 1125; violation of the Minnesota

Deceptive Trade Practices Act, Minnesota Statutes section 325D.44 4 et seq.; common law fraud; negligent misrepresentation; breach of fiduciary duty; and unjust enrichment. Insty*Bit's claims arise out of Poly-Tech's attempts to manufacture and market various power drill accessories. In its Complaint, Insty*Bit seeks damages, preliminary and permanent injunctive relief; and attorneys fees. Poly-Tech has asserted a counterclaim for sanctions, purportedly pursuant to Rule 11 of the Federal Rules of Civil Procedure, Rule 11 of the Minnesota Rules of Civil Procedure, and Minnesota Statutes section 549.21. Currently before the Court are (1) Insty*Bit's Motion to Dismiss Poly-Tech's Counterclaim (2) Poly-Tech's Motion for Summary Judgment for Non-Trade Dress infringement and (3) Insty*Bit's Motion for a Preliminary Injunction. For the reasons set forth below, the Court will grant Poly-Tech's Motion for Summary Judgment for Non- Trade Dress Infringement, deny Insty*Bit's Motion for a Preliminary Injunction as moot dismiss Insty*Bit's Complaint without prejudice pursuant to 28 U.S.C. § 1367(c)(3), and accordingly deny Insty*Bit's Motion to Dismiss Poly-Tech's Counterclaim as moot.

Background

A. Parties

Insty*Bit is a Minnesota corporation with its principal place of business in Minneapolis, Minnesota. Insty*Bit is engaged in the business of designing, manufacturing, distributing, and marketing "quick-change" products for use with power drills. The

principal of Insty*Bit is James Wienhold ("Wienhold"). Between 1988 and August 1994, Wienhold conducted business as Wienhold Associates and used the registered name of "INSTY*BIT" to indicate its product line. In August 1994, Wienhold incorporated Insty*Bit and assigned the assets of Wienhold Associates to it.

Poly-Tech is a Minnesota corporation with its principal place of business in Minneapolis, Minnesota. Poly-Tech is a "job shop" engaged in the manufacture of component parts for other business entities. Poly-Tech also currently manufactures and sells quick-change drilling products for use with power tools under the brand name "Snappy™."

B. Factual Background

Poly-Tech began manufacturing component parts for Wienhold Associates during 1988. (Compl. ¶ 9; Quiring Aff. ¶ 6.) Among the items manufactured were component parts for: (1) a quick-release chuck, (2) a countersink, and (3) a drill guide. These three products are used as accessories for power drills. Poly-Tech was initially employed solely to manufacture the component Insty*Bit parts, which were then shipped back to Wienhold Associates for assembly and distribution. (Quiring Aff. ¶ 6.)

In 1989, Poly-Tech began to purchase some of the assembled products back from Wienhold Associates for resale. (Id. ¶ 7.) Poly-Tech subsequently began to distribute and promote these Insty*Bit products. Poly-Tech claims that it did not receive any direction,

instructions, or conditions from Wienhold with respect to its resale activity regarding the Insty*Bit products; (Id. ¶ 7); and that it was entitled to sell these products to whomever, where ever, and through any method it selected (Quiring's Third Aff ¶ 3). Poly-Tech claims that it accordingly promoted its tool line -- which included the Insty*Bit products as well as its own products and products purchased from various other manufacturers -- at national trade shows and through Poly-Tech sales representatives and distributors. (Quiring Third Aff. ¶ 4.) Poly-Tech further claims it made a substantial investment in developing a "national distribution chain" to market products purchased from Wienhold Associates, (Quiring Aff. ¶ 7.)

Poly-Tech alleges that, beginning in 1991, Wienhold Associates representatives called Poly-Tech's dealers and hardware stores and told them they were required to purchase the Insty*Bit products directly from Wienhold Associates representatives, who were given exclusive distributorships within specified sales territories. (Quiring Aff ¶ 8.) As a result, Poly-Tech contends that between 1991 and 1993, Wienhold Associates exclusive sales representatives "effectively stole all of Poly-Tech's dealers and hardware stores throughout the country," with the exception of Ohio, New York and New Jersey. (Id).

Insty*Bit paints a very different picture of its business dealings with Poly-Tech. Insty*Bit claims that explicit conditions were placed on Poly-Tech's authority to sell and distribute the Insty*Bit quick-release chuck and its accessories. Wienhold maintains that Poly-Tech was

granted the right to sell the Insty*Bit quick-release chuck system in a "limited" territory, consisting of Ohio, New York and New Jersey. (Wienhold Aff. ¶ 7; Wienhold Second Aff ¶ 4.) Wienhold further claims that he decided which trade shows were to be attended by Poly-Tech and which were to be attended by other Insty*Bit sales representatives or distributors. (Wienhold Second Aff. ¶ 4; Compl. ¶ 10.) He claims that he was "surprised" to discover that Poly-Tech sold Insty*Bit products "far beyond the manner and locations for which it had been authorized." (Wienhold Second Aff ¶ 8.)

Beginning in approximately 1990, Insty*Bit apparently attempted to develop its own national distribution chain for its products. (Wienhold Aff. ¶ 13; Wienhold Second Aff ¶ 5.) Insty*Bit claims that in furtherance of this plan, its products were featured in national catalogs, at trade shows, at in-store demonstrations and in an expensive television "infomercial." (Wienhold Aff, ¶ 13.) As a result of this advertising, Insty*Bit claims the unique features of its products have become well-recognized in the marketplace. (Compl. ¶ 8.)

In addition to selling quick-release products under its own name, Insty*Bit offers these products for sale through "private labeling." (Wienhold Second Aff ¶ 7.) According to Insty*Bit, it has eight national distributors of its products. (Wienhold Aff. ¶ 10.) Four of these distributors sell the products under their own name or under no name, two sell unmarked products, and two sell them under the "Insty*Bit®" label. (Id.) According to Poly-Tech, approximately 60% of the Insty*Bit quick-release chucks sold have been sold

through private label offerings, and that only the remaining 40% identified Insty*Bit as the source for the quick-release chuck or accessories. (Kaul Aff. ¶ 8.)

In 1993, Poly-Tech developed its own quick-release chuck system. (Quiring Third Aff ¶ 9.) A patent application for this quick-change chuck system was filed with the United States Patent Office on December 29, 1993, and a patent (No. 5,398,946) was subsequently issued on March 21, 1995. In the summer of 1994, Poly-Tech informed Wienhold that it was adding its own line of quick-release tools to Poly-Tech's product line. (Id. ¶ 10; Compl. ¶ 14.) Shortly thereafter, Insty*Bit pulled its product line from Poly-Tech and ceased placing further orders for Insty*Bit component parts. (Quiring Third Aff. ¶ 10.) Poly-Tech subsequently began marketing its own quick-release-chuck products under the brand name "Snappy™." (Compl. ¶ 17.)

Insty*Bit argues that the Snappy quick-release chuck, countersink, and drill guide are "knock-offs" of the Insty*Bit quick-release chuck, countersink, and drill guide. (Id.) Insty*Bit claims that Poly-Tech has copied the unique, non-functional design characteristics of Insty*Bits products such that there is a likelihood of confusion among consumers in the market place, and that this copying infringes upon Insty*Bits protectable trade dress in violation of the Lanham Act, 15 U.S.C. § 1125. (Id.¶¶ 21, 22.) In response, Poly-Tech maintains that it has identified and differentiated its products from Insty*Bits and those of other manufacturers and that it has "no interest" in deceiving

anyone as to the source of its products. (Quiring Third Aff. ¶ 15.)

This Court has original jurisdiction over Insty*Bits § 1125 Lanham Act claim pursuant to 28 U.S.C. §§ 1331 and 1338 and has supplemental jurisdiction over the remainder of Insty*Bit's claims pursuant to 28 U.S.C. § 1367.

Discussion

I. Standard of Review

Rule 56 of the Federal Rules of Civil Procedure governs motions for summary judgment. Under that Rule:

> [summary] judgment shall be rendered forthwith if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.

Fed. R. Civ. P.56(c). Summary judgment is to be granted only where the evidence is such that no reasonable jury could return a verdict for the non-moving party. See Anderson v. Liberty Lobby Inc., 477 U.S. 242,250, 106 S. Ct. 2505,2511(1986). Initially, the movant bears the burden of bringing forward sufficient evidence to establish that there are no genuine issues of material fact and that the movant is entitled to judgment as a matter of law. Celotex.

Corp. v. Catrett, 477 U.S. 317, 322, 106 S. C.t 2548, 2552 (1986). In evaluating the movant's showing, the evidence offered by the non- moving party is to be believed and all justifiable inferences therefrom are to be drawn in a light most favorable to that party. Matsushita Elec. Indus. v. Zenith Radio, 475 U.S. 574, 587, 106 S. Ct. 1348, 1357(1986); Kornblum v. St. Louis County, No.93-4111, slip op. at 4 (8th Cir. Feb.15, 1995). where a moving party, with whatever it provides the court, makes and supports a motion for summary judgment in accordance with Rule 56, a party opposing the motion may not rest upon the allegations or denials of its pleadings; rather, the nonmovant must " set forth specific facts showing that there is a genuine issue for trial," Liberty Lobby, 477 U.S. at 256, 106 S. Ct. at 2514; Krenik v. County of Le Sueur, 47 F.3d 953, 957 (8th Cir. 1995). However, the nonmovant is not obligated to prove in its favor an issue of material fact, Unigroup v. O'Rourke Storage & Transfer, 980 F.2d 1217, 1220 (8th Cir. 1992), and a summary judgment motion should be denied unless the court is convinced that there is no evidence to sustain recovery in any circumstances, Kornblum, No.93-4111, slip op. at 4.

Ordinarily, the court's task on a motion for summary judgment is not to weigh facts or evaluate the credibility of affidavits and other evidence. The nonmovant cannot however, avoid summary judgment in favor of the movant merely by pointing to some alleged factual dispute between the parties. Instead, any fact alleged to be in dispute must be "outcome determinative under prevailing law," that is, it must be material to an essential element of the specific theory

of recovery at issue. See Get Away Club Inc. v. Coleman. 969 F.2d 664, 666 (8th Cir. 1992).

II. Analysis

Insty*Bit alleges the Poly-Tech "Snappy" brand quick-release products infringe on its trade dress in violation of 11 U.S.C. § 1125.[1] In support of this claim,

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[1] 15 U.S.C. § 1125 provides, in pertinent part:

> False designation of origin and false descriptions forbidden
>
> (a)(1) Any person who, on or in connection with any goods or services, or any container for goods, uses in commerce any word, term, name, symbol, or device, or any combination thereof, or any false designation or origin, false or misleading description of fact, or false or misleading representation of fact which--
>
> > (A) is likely to cause confusion or to cause mistake, or to deceive as to the affiliation, connection, or association of such person with another person, or as to the origin, sponsorship, or approval of his or her goods, services, or commercial activities by another person, or
> >
> > (B) in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of his or her or another person's

Insty*Bit alleges its products contain the following protectable trade dress:

> Quick change chuck - "the combination of the color black; the shape of the shank; the size and dimensions of the sleeve; and the chamfered edge - raised knurled band - recessed smooth band raised knurled band appearance of the chuck sleeve";
>
> Drill guide - "the combination of the color black; the steel colored bit; the exposed spring; the shape and style of the set screw and opening; and the shape of the opening for receiving the shank in the collar";
>
> Countersink - "the combination of the color black; the shape and style of the set screw and opening; the use of two flutes; the shape of the collar; the raised edge on the countersinking portion; the overall size and dimensions; and the shape of the opening for receiving the shank in the collar."

(Wienhold Aff. ¶ 14.)

> goods, services, or commercial activities,
>
> shall be liable in a civil action by any person who believes that he or she is or is likely to be damaged by such act.

In order to establish a prima facie case of trade dress infringement under § 1125, Insty*Bit must demonstrate:

> (1) its trade dress is inherently distinctive or has acquired distinctiveness through secondary meaning;
>
> (2) its trade dress is primarily nonfunctional; and
>
> (3) imitation of its trade dress would result in likelihood of confusion as to the source of the products in consumers' minds.

Two Pesos, Inc. v. Taco Cabana, Inc., __ U.S. ___ 112 S. Ct. 2753, 2758 (1992); Stuart Hall Co. v. Ampad Corp., No.94-2618, slip op. at 3 (8th Cir. April 7, 1995). In applying these factors, a court must consider the "total image" of the product as it is presented to "the consuming public," including features such as size, shape, color or color combinations, texture and graphics. L.A. Gear, Inc. v. Thom McAnn Shoe Co., 988 F.2d 1117, 1129 (Fed. Cir.), cert. denied 114 S. Ct. 291 (1993); see also Woodsmith Publishing Co. v. Meredith Corp., 904 F.2d 1244, 1247 (8th Cir. 1990) ("[t]he trade dress of a product is the total image of a product, the overall impression created, not the individual features"). In the present case, the Court concludes that Insty*Bit has failed, as a matter of law, to present facts sufficient to satisfy the third prong of § 1125 analysis.

Likelihood of Consumer Confusion

The "dispositive issue in a trade dress case is the possibility of consumer confusion as to the source of the product." First Brands Corp. v. Fred Meyer Inc., 809 F.2d 1378, 1383 (9th Cir. 1987); See L.A. Gear. Inc. v.Thom McAnn Shoe Co., 988 F.2d 1117, 1131 (Fed. Cir. 1993) ("[i]f likelihood of confusion is avoided, copying of trade dress cannot be prevented *under* [§ 1125]"). "The test is whether there is a likelihood of confusion resulting from the total effect of the defendant's product and package on the eye and mind of the ordinary purchaser." First Brands, 809 F.2d at 1384 (emphasis added). The factors typically considered in this analysis are (1) the strength of the owner's mark; (2) the similarity between the owner's mark and the alleged infringer's mark; (3) the degree to which the products compete with each other; (4) the alleged infringer's intent to "pass off" its goods as those of the trademark owner; (5) incidents of actual confusion; (6) the type of product, its costs, and conditions of purchase. Co-Rect Prods. v. Marvy! Advertising Photography Inc., 780 F.2d 1324, 1330 (8th Cir. 1985); see Conopco Inc. v. May Department Stores Co., 46 F.3d 1556, 1565 (Fed. Cir. 1994), cert. denied ___ S Ct ___ 1995 WL 94103 (April 17, 1995) (applying six Co-Rect factors to § 1125 claim).

Although the Insty*Bit products and the Snappy products compete in the same market, independent application of the six Co-Rect factors is unnecessary in this case. The focus of the likelihood-of-confusion analysis -- and thus the Co-Rect factors -- is whether, "based on the entire product image" the consumer will

be confused as to the source of the products. LA. Gear 988 F.2d at 1133. In this case, Poly-Tech has left no doubt as to the source of the Snappy brand products. The Snappy and Insty*Bit product packaging designs are so graphically dissimilar that there is no reasonable likelihood that consumers would confuse a Snappy brand product with the Insty*Bit product. The words "Snappy™" appear in large letters prominently displayed on the front of the Snappy packages for each of the three products claimed to violate § 1125. Indeed, the brand name "Snappy" appears in bold letters nine times on the Snappy quick-release chuck package and in bold letters six times on each of the Snappy countersink and drill guide packages. "Snappy" is also permanently embossed on the face of each of the components themselves, and the embossed imprint is visible through clear plastic "bubble" packaging. Each Snappy package also contains the name "Poly-Tech Ind." along with its mailing address and phone number printed on the bottom. The front face of each of the Snappy packages is solid purple with white lettering and yellow accent highlighting.

In contrast, the front face of the Insty*Bit product packages contains, in large, bold letters, the word "INSTY-BIT®". The back face of the Insty*Bit product packages also contains the word "INSTY-BIT®" in bold. These products have the word "INSTY-BIT" embossed on the components, which are visible through clear plastic packaging. Each Insty*Bit package also contains the name "©Wienhold Associates" set off from text on the bottom of the package. The front of these packages is solid white, not purple.

Insty*Bit has also provided its products to other manufacturers for resale. In some of these cases, Insty*Bit has not marked its product with the "INSTY-BIT®" label. No evidence before the Court suggests the packaging of these private labels is similar to the packaging of the Snappy brand; to the contrary, the private label packages submitted to the Court show that the packaging of the Snappy brand is unique. (See Def's Mot. for Summ. J., Ex. 1.) Moreover, while consumers may become confused as to whether the Insty*Bit private label components were made by Insty*Bit or someone else, there is no confusion as to the source of the Snappy brand products. Their source is clearly, conspicuously, and repeatedly identified in the Snappy trade dress.

Based on the "total presentation" of the Snappy brand products to the consumer, there is no reasonable likelihood of confusion as to their source. No evidence suggests that Snappy has confused consumers into thinking its components were made by Insty*Bit. Instead, its products are unmistakably identified as "Snappy" brand. Summary judgment is appropriate in this circumstance. See L.A. Gear, 988 F.2d at 1125, 1133-1134 (holding that district court "clearly erred" in finding § 1125 trade dress violation, "despite the substantial similarity of overall design" and despite the defendant's intentional copying, because trademarks were conspicuously labeled on the products); Conopco, 46 F.3d at 1570. (holding that district court committed "clear error" in finding a likelihood of confusion under § 1125 because a "prominent placement" of defendant's logo appeared on the front face of defendant's products) (applying Eighth Circuit law); Litton Sys. Inc. v. Whirlpool Corp., 728 F.2d 1423, 1446-47 &

n.1. (Fed. Cir. 1984) (holding that Minnesota district court committed "clear error" in finding likelihood of confusion under § 1125 when defendant's name was affixed to its product).[2]

In the face of Poly-Tech's overwhelming evidence that consumers would not likely be confused as to the source of its products, Insty* Bit offers the results of a survey of 102 potential quick-release system customers. The "expert" conducting that survey concluded that "at least eight out of ten respondents perceive that Snappy's products are manufactured by the same company as "Insty*Bit®."" (Stitt Aff., Ex. B at IB-3193.) Ostensibly, this might be construed to create an issue of material fact regarding whether consumers might be confused about the source of the Snappy brand products. Despite this appearance, however, a careful review of this survey demonstrates that it has no probative value with respect to the likelihood of consumer confusion in this case. The data

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[2] Litton explained that:

> The district court failed to recognize that the most common and effective means of apprising intending purchasers of the source of goods is a prominent disclosure on the container, package, wrapper, or label of the manufacturer's or trader's name. . . and that when that is done, there is no basis for a charge of unfair competition.

Id. at 1446 (quotations omitted).

supporting this conclusion was complied by showing subjects unpackaged quick-change chucks, unpackaged countersinks and unpackaged drill guides, and asking them "In your opinion, which of the test products look like they are manufactured by the same company as the prototype [Insty*Bit product]?" (Id. at 113-3249, No.11; 113-3251, No.32; IB-3252 No.42.) However, to determine whether a substantial likelihood of confusion exists under § 1125 the product must be considered in its totality as it is presented to the average consumer -- which in this case is to say in a package containing the identifying source "Snappy" in bold letters between nine and six times and the words "Poly-Tech Ind." printed on the bottom.

The Insty*Bit survey also tested the packaged products, and concluded that a statistically significant number of the respondents interviewed would purchase the Snappy brand products as a satisfactory match to Insty*Bit's.[3](Id. at IB-3197.) This is irrelevant to the

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[3] The survey participants were asked the following questions after having been shown quick-change chuck, drill guides and countersinks in their packages:

> (1) I'd like you to rate the degree of similarity between the following product and the prototype [Insty*Bit product], based on overall product appearance as packaged, using a ten point scale where 1 is totally dissimilar and 10 is totally similar.
>
> (2) Let's suppose that someone from work or a family member gave you this tool, the prototype

Third prong of the § 1125 analysis. Marketing a competitive substitute is not a violation § 1125. Indeed, it is encouraged.[4] The issue here is not whether

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> [Insty*Bit product], and asked you to go to a hardware store or other parts supplier to get another one. Are there any here that you would consider so similar or such a satisfactory match that you would buy it?

(Stitt Aff. Ex. B at IB 3252-54.)

During argument, Insty*Bit asserted that survey participants were shown the packaged products, asked if they looked like they were manufactured by the same company, and responded that the packaged products appeared to be manufactured by the same company. This may have been probative to the issue of consumer confusion. However, participants were not asked that question. (See id. at IB-3249-54.)

[4] L.A. Gear determined that the defendant intentionally copied the plaintiffs trade dress and that the first and second prongs of the § 1125 analysis had been satisfied. The court nevertheless reversed the trial court's finding of trade dress infringement and explained that "the public has the right to copy the design of goods that are unprotected by patent or copyright, absent consumer confusion or deception." L.A. Gear, 988 F.2d at 1131 (emphasis added). The Supreme Court has also emphasized this principle, explaining that:

> [T]he plaintiff has the right not to lose

consumers would substitute a defendant's product for the plaintiffs nor is it whether the products are similar; the issue is whether consumers would likely purchase the defendants product mistakenly thinking it was manufactured by the plaintiff. See L.A. Gear 988 F.2d at 1134. Insty*Bit has failed to create a genuine issue of material fact with respect to its § 1125 Lanham Act claim Poly-Tech is accordingly entitled to a summary judgment finding of non-trade dress infringement.

Supplemental Jurisdiction

Insty*Bits § 1125 claim is the only federal claim asserted in its Complaint. 28 U.S.C. § 1367(c) provides that "the district court may decline to exercise supplemental jurisdiction over a claim...if...the district court has dismissed all claims over which it has original jurisdiction." The Supreme Court has explained that "[Supplemental] jurisdiction is a doctrine of discretion, not of plaintiff's right... [I]f the

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> his customers through false representation that those are his wares which in fact are not, but he may not monopolize any design or pattern, however trifling. The defendant, on the other hand, may copy plaintiffs goods slavishly down to the minutest detail: but he may not represent himself as the plaintiff in their sale.

Bonito Boats. Inc. v. Thunder Craft Boats. Inc. 489 U.S. 141, 157, 109 S. Ct. 971, 981 (1989) (quoting Crescent Tool Co. v. Kilborn & Bishop Co.. 247 F. 299, 301 (2nd Cir. 1917)).

federal claims are dismissed before trial... the normal practice is to dismiss pendant claims without prejudice." United Mine Workers v. Gibbs, 333 U.S. 715, 726, 36S. Ct. 1130, 1139 (1966); see also Stokes v. Lokken, 644 F.2d 779, 735 (8th Cir. 1981) ("when federal claims are dismissed before trial, the normal practice is to dismiss pendent claims without prejudice, thus leaving plaintiffs free to pursue their state-law claims in state courts if they wish"). This case is not scheduled for trial until April 1996. Accordingly, the Court will dismiss the remainder of Insty*Bits Complaint without prejudice.

Conclusion

Based on the foregoing, and upon all the files, records and proceedings herein, IT IS ORDERED that:

(1) Defendant's Motion for Summary Judgment for Non-Trade Dress Infringement (Doc. No.35) is GRANTED and Count I of Plaintiffs Complaint (Doc. No.1) is DISMISSED WITH PREJUDICE;

(2) Plaintiffs Motion for Preliminary Injunction (Doc. No.28) is DENIED AS MOOT; and

(3) Plaintiffs Motion to Dismiss Defendant's Counterclaims (Doc. No.7) is DENIED AS MOOT.

IT IS FURTHER ORDERED that the remainder of this action is DISMISSED WITHOUT PREJUDICE pursuant to 28 U.S.C. § 1367(c).

LET JUDGMENT BE ENTERED ACCORDINGLY

Dated: April 26, 1995

RICHARD H. KYLE
United States District Judge

United States Court of Appeals

For the Eighth Circuit

No. 95-2260MNST

Insty*Bit, Inc.,

Appellant,

v.

Order Denying Petition for Rehearing and Suggestion for Rehearing En Banc

Poly-Tech Industries, Inc.,

Appellee.

The suggestion for rehearing en banc is denied. The petition for rehearing by the panel is also denied.

October 21, 1996

Order Entered at the Direction of the Court:

/s/

Clerk, U.S. Court of Appeals, Eighth Circuit

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
THIRD DIVISION

Insty*Bit, Inc.,

Plaintiff

vs.

Civil No. 3-94-1427
Judge Richard H. Kyle
AFFIDAVIT OF ROBERT J. DE BREY

Poly-Tech Industries, Inc.,

Defendant.

STATE OF MINNESOTA
ss
COUNTY OF HENNEPIN

I, Robert J De brey, being duly sworn upon oath, depose and state that:

1. I am a mechanical engineer, a graduate of the University of Notre Dame in mechanical engineering, and hold a masters degree from the Institute of Design at Illinois Institute of Technology. I have received additional education in marketing and psychology from Northwestern and Loyola Universities.

2. I am presently employed with De brey Design, located at 6014 Blue Circle Drive,

Minneapolis, Minnesota 55343, telephone 612-935-2292. Over the past 30 years I have worked in a consulting capacity, concentrating in product design and development, corporate identity, and marketing communications. I have conducted over 200 programs for a wide range of clients, encompassing a comprehensive approach to address all elements of a clients needs including technical, ergonomic, human factors, and aesthetic and economic designs for manufacture and sale of products.

3. I established De brey Design in 1965 and I have provided services in the capacities as a consultant since that time. Prior to initiation of De brey Design, I was employed with the General Electric Co., Naval Research Laboratory, Jensen Design Consultants. and IIT Research Institute.

4. I have attached to this affidavit a resume which more fully describes my qualifications and professional experience.

5. In the past, I have provided expert opinions in a variety of intellectual property lawsuits related to patent infringement, trademark infringement, and trade dress cases as evidenced by the attached Summary of Case Experience.

6. I have consulted on and participated in the following design projects for clients which are in the general category: of the design and development of tools.

Wood Plane	A cast aluminum plane for finishing. wood, utilizing a

	unique disposable blade design.
Sanding Machine	Redesign of conveyorized, production wood sanding machine, including ergonomics, technical, and aesthetic.
Apple Peeler	Product concept, development, and production design for consumer tool to peel, slide, and core apples, mainly for home canning. Also, design of the product package.
Ball Point Pen	Several ball point pens with innovative point projection and point protection concepts.
Automotive Ice Scraper	An ergonomically designed tool for removing ice from car windshields. Selected for the design collection of the Museum of Modern Art, N.Y.
Light Pen	Engineering, ergonomic, and aesthetic design concepts for hand-held light pen for use with desktop computers.

Corn cutter	A hand-held device for remolding the kernels of corn from a cob for the canning process.
Canning Tongs	Ergonomic design of specialized tongs for the aesthetic placement of food in canning jars.
Canning Tongs	Ergonomic design of specialized tongs for the aesthetic placement of food in canning jars.
Aircraft Helmet	Ergonomic and aesthetic design for pilot's helmet for F-16 fighter aircraft, utilizing advanced electronic communications.
Saber Saw	Ergonomic and aesthetic design concepts for hand-held electric saber saw.

7. I have prepared a report (Exhibit 6) which sets forth my analysis and conclusions with respect to the trade dress issues raised within this proceeding. All matters stated in the report are true to my knowledge and belief and as to those matters stated on belief. I believe them to be true. It is my opinion that no protectible trade dress is present in this case with respect to Plaintiff's quick change chuck, countersink, or drill guide.

FURTHER YOUR AFFIANT SAYS NOTHING except that all matters stated herein are true to your affiant's knowledge and belief, and as to those matters stated on belief, I believe them to be true.

ROBERT J. DE BREY

Dated ___

Subscribed and sworn to before me this 16 day of February, 1995

Resume

Robert J. De brey
612-935-2292

EMPLOYMENT

Mr. De brey has worked in a consulting capacity for the past thirty years concentrating in product design and development, corporate identity, and marketing communications. He has conducted over two hundred programs for a wide range of clients. A comprehensive approach is utilized which addresses all elements of the client's needs, i.e.; technical, human factors, aesthetic and economic.

Prior to establishing De brey Design in 1965, he was associated with the following companies: The General Electric Company, Naval Research Laboratory; Latham, Tyler,. and Jensen, Design Consultants and IIT Research Institute

EDUCATION

Mr. De brey is a Mechanical Engineering graduate of the University of Notre Dame, and holds a Masters Degree from the Institute of Design at Illinois Institute of Technology. Additional programs in marketing and psychology were completed at Northwestern and Loyola Universities.

PROFESSIONAL RECOGNITION

Thirty-five issued patents
Minnesota Design Award for product and graphic design
Listed in Who's Who in Technology Today
Selected five times for the Annual Design Review
Wescon Design Award for product and graphic design
Art Directors Award for computer package design
Industrial Design Magazine, Cover
Museum of Modern Art, New York, Design Collection
Industrial Design Excellence Award, Product Design
IDEA Award for package design
IDEA Special Mention Award
38th Annual Design Review, Gold Award

AREAS OF EXPERTISE

Industrial Design
Ergonomic Design
Graphic Design
Model Making
Marketing
Materials and Manufacturing Processes
Mechanical Engineering
Sourcing Components and Services
Evaluation and Selection of Vendors
Contract Administration
Expert Witness In Product Liability Cases
Panel of Commercial Arbitrators, AAA

ADDITIONAL SKILL

Knowledge in a wide range of manufacturing machines, materials, and processes
Proficient with mechanical devices, tools, and assemblies
Photography and Video
Familiar with cultures of the following countries: Canada, UK, Germany, France, Hungary, former Yugoslavia, Spain, Portugal, Italy

TRIAL VISUALS

De brey Design

GRAPHIC EXHIBITS

Graphs and flowcharts
Visualization of Process
Diagrammatic portrayal of events
Structures, machines, components
Photographs, slide sequences, film

As the verbal testimony of your case is delivered, a multitude of different images may appear in the minds of the court and jury. The alternative is a persuasive visual presentation, carefully designed to locus those minds to a common understanding of circumstances. Eliminate erroneous ideas; point out unseen relationships and reduce the case to important decision factors. A legal position will dominate when its merits become obvious.

3-DIMINESIONAL MODELS

Detailed evidentiary exhibits
Precision product models, cutaways
Configureational mock-ups
Architectural scale models.

A picture may be worth 1000 words but "a model is worth 1000 pictures". Modeling is a universal language and thus, a highly effective medium through which to communicate the overall concept, operating details, special relationships, and appearance of a product or process. Visualization for the court may concentrate on

hazardous conditions, design deficiencies, or the actual results. "Before and after" conditions can be sequentially analyzed and alternate design approaches presented. A three dimensional statement focuses attention, helps to clarify circumstances and bring about a meeting of minds.

COST EFFECTIVENESS

Models and exhibits justify their place in the financial plan of every complex case. A case can be strengthened when everyone's thinking follows a common reference; trial time is substantially reduced, or possibly eliminated through pre-trial settlements. Larger awards can sometimes be traced to the jury's and court's increased perception, understanding, and sensitivity resulting from the use of visuals designed to meet communication objectives.

Appeal cases can also benefit through rapid, clarified presentation.

QUALIFICATIONS

Our firm is fully equipped with design and shop facilities and employs a wide range of mediums to accomplish the attorney's objectives. Graphic design, engineering, and model making talent are blended from planning to completion to insure that the results are accurate, effective, and confidential.

We would be happy to discuss the communication needs of your next case.

De brey Design

De brey Design

Case Experience of Robert J. De brey

CASE	DESCRIPTION	SERVICES
Cardiac Pacemakers vs. Coratomic	Patent Infringement	Trial Visuals Expert, Design
Cardiac Pacemakers vs. Medtronic	Patent Infringement	Trial Visuals
St. Jude Medical vs. Possis Corp.	Patent Infringement	Trial Visuals Technical Expert
Chief Industries vs. Squareliner	Patent Infringement	Trial Visuals Technical Expert
Chicago Cutlery vs. Bordien Corp., Tommer Cutlery	Patent Infringement	Expert Witness Design
Peterson vs. Komatsu of Japan	Personal Injury	Expert Witness Human Factors
Abdo vs. Sperry New Holland	Personal Injury	Expert Witness Human Factors
Parkos vs. Metropolitan Wire Corp.	Personal Injury	Technical Expert
Plaintiff vs. Kai Cutlery, Tokyo	Personal Injury	Technical Expert Human Factors

Gravity Guidance inc. vs. Inversion Health Systems	Patent Infringement	Technical Expert
Plaintiff vs. Raygo, Inc.	Personal Injury	Trial Visuals
Metronic vs. Pacesetter, Inc.	Patent Infringement	Trial Visuals
Otto Bock vs. Daw Industries	Patent Infringement	Trial Visuals
Northland group vs. Christian Bros.	Patent, Trademark	Expert Witness
Horton Clutch vs. Tlomatic	Trade Dress	Expert Witness Design

Insty*Bit, Inc.

vs.

Poly Tech Industries, Inc.

REPORT OF ROBERT J. DE BREY FOR DEFENDANT

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SECTION 1. INTRODUCTION

Insty-Bit a Minnesota corporation located in Minneapolis, is an assembler of parts related to specialized tool accessories for the professional and consumer hardware trade. Poly-Tech is also a Minnesota corporation located in the Twin Cities and performs general job-shop machine work. Poly-Tech has been producing the parts for Insty-Bit's tool accessory line since approximately 1988, and has in the past operated a business marketing and selling products purchased from Insty-Bit.

More recently Poly-Tech has begun production of its own line of quick release tools. Insty-Bit has objected to Poly Tech's production and trade in the same market and has charged, among other things, infringement of its trade dress and violation of the Minnesota Deceptive Trade Practices Act.

Poly-Tech's attorneys, Palmatier, Sjoquist, and Helget, have retained the writer for Expert testimony on the design features of the tools in question and how they might be viewed in the marketplace as related to factors of trade dress.

Process

To accomplish this assignment a meeting was held at the office of Palmatier, Sjoquist, and Helget on February 10, 1995 at which time a detailed explanation of the case was given. Samples of the various tools were provided including relevant items of both brands.

The complaint document and response to interrogatories were then studied in detail. A detailed analysis of the samples was made in an attempt to determine the basic character and existence of asserted design features as they might contribute to the development of "trade dress" in the marketplace.

Observational trips were also made to a number of retail outlets which handle the types of tools under study. A variety of tool accessories were selected for their comparative and illustrative value and purchased for consideration. They are included in this report in photographic form in Section 6. Exhibits.

SECTION 2. CONCLUSIONS AND OPINIONS

The questions to be answered include whether or not there exists a non-functional trade dress, whether the asserted trade dress functions to denote a source of origin, and whether there exists a likelihood of confusion in the marketplace between the two competing product lines.

Point of Sale

The writer's conclusion is that there is virtually no chance for confusion at point of sale, even in the rare event that the two products appeared side by side in the merchandising display. The two packaging designs are so graphically dissimilar as to allow no possibility that one product might be mistaken for the other. (See exhibits #10, 11,12).

Furthermore, it is understood that these items are never sold in bulk form and we also know that the packages are not easily opened with bare hands even if

one were inclined to do so. Thus one can assume that in all cases the graphic power of the package is the primary reference to verify identity.
From a merchandising point of view, the front face of the Insty-Bit product line packaging is more effective in communicating the brand name and product identity than the front face of the Snappy brand. Insty-Bit's name is printed larger, is in more readable type and is not encumbered by other competing words. The Insty-Bit product, in all cases, stands in front of a clean white background where it is more clearly observed in a contrast condition. The names of both brands are quite conspicuous and provide unmistakable identification of the source. (See exhibits #10,11,12).

Where the customer closely examines the front and back of the respective packaging, the Snappy brand does a better job of conveying the source of the product. The identifying name "Snappy" appears ten times on the chuck packaging and is also printed on the actual product which is visible through the clear plastic. The corporate name, address, and phone number is also on the back side of the Poly-Tech packaging.

The Insty-Bit package in contrast repeats "Insty-Bit" a total of four times on the package and has a further identifier Copyright Weinhold Associates, 1993, Minneapolis, MN 55426

The particular style of the packaging is such that the product is covered over with a layer of clear plastic. To produce the plastic "bubble" which nests the product, the sheet material is stretch formed over curved surfaces under vacuum, which virtually guarantees

that its clarity will be partially distorted in an optical sense. For example, it is impossible to determine by external observation alone that the sleeve on the Sears Roebuck Quick Change Chuck is actually molded in plastic rather than machined from steel. (See exhibit #16). Thus, from a practical standpoint, the customer is pretty much limited to external packaging information to identify the product, its purpose, the material of construction, distinctive design features, and its maker. Under normal circumstances the buyer of this product is going to interpret the information on the packaging and accept it at face value

Private Label Products

The most likely source of confusion in the marketplace is the existing practice of Insty-Bit providing its same products, private labeled, to other OEM's without identifying the true source. As stated above, the customer is likely to accept that the product is manufactured by the company named on the package. When the product is removed from the package the only identification is the brand name stamped on the product. Apparently the actual product sold in the private labeling may either be marked with "Insty-Bit", the name of the private labeler, or with no identifier.

The Porter Cable Quick Change Chuck looks physically identical to the Insty-Bit Quick Change Chuck (note name similarities also) therefore, one is bound to wonder "who makes what?" The Porter Cable packaging employs the same colors and graphic lined background as Insty-Bit packaging. (See exhibit #39). This marketing strategy would seem to be counter productive to Insty-Bit's efforts to establish any recognition of their products in the marketplace.

The private labeling destroys a consumer's ability to identify a single source of origin for the products.

The Product in Hand

Once the package is opened and the product separated from the identifying printed information one is left with product information, ie word marks, trademarks, patent numbers, model numbers, operative sizes, and last but not least, specific product features and the overall configuration of the product itself.

Insty-Bit has claimed a list of approximately thirty-six (36) "non-functional" design features for their product line from which its trade dress is constructed. These were analyzed in detail and evaluated using the criteria normally associated with trade dress development and protection. In all but a few isolated instances the claimed design features were judged functional because they benefited the consumer and, or the manufacturer, were essential to the purpose, and enhanced the quality.

Are the product designs as a whole functional? Tool products in general and drilling tools and accessories in particular are designed with efficiency in mind. This means doing more with less, at the lowest cost, and maximizing performance. Such a process leaves little room for the arbitrary and fanciful, or the option of specifying a component or feature primarily to denote a source of origin. The tool accessory market is highly competitive and forces the optimization of function.

The Plaintiff manufactures his Quick Chuck under two U.S. utility patents which show its functional design

character. The whole purpose of this tool is to render repetitive operations with the portable electric drill more efficient. It is purchased for its time saving and convenience attributes.

The countersink tools are also aimed at efficiency by combining drilling and countersinking into one operation. The size combination of the drill and countersink is pre-selected for each screw size and retained in the tool. Countersinking depth is controlled automatically for some operations.

The Insty-Bit Quick Change Drill Guides are designed to quickly, conveniently, and accurately perform the important operation of centering the drilled hole in the countersunk hole of the hardware to be mounted. There appears to be no other purpose for these tools

There are no non-essential elements in these designs.

It is obvious then that all of the above products were created as purely functional devices. Thus, combined with the described appraisal of the functionality of the individual design features, the designs, in the writers judgment, are functional as a whole.

In the writers opinion, it would be detrimental to competition to give trade dress protection to all of the charted design features individually or in combination, except the two noted. In only one case was a design feature (the exposed spring on drill guides) rationalized as possibly being used to denote a source of origin. As one might expect with technical type tool products, none of the 36 claimed design features were classified as arbitrary or fanciful.

The Feel of the Products

The Plaintiff has claimed "the feel" of the products as well as the design features. Upon comparing the operation of Insty-Bit Quick Change Chuck and the Snappy Quick Chuck, it became immediately apparent that there is a major ergonomic difference between the two. Poly Tech produces their "Snappy" product with a different and patentable design feature which allows the user to insert a tool into the chuck single-handedly by simply pushing the bit straight in until it bottoms out and locks. Upon doing so, the Snappy chuck produces strong tactile feedback and makes a loud click simultaneously upon locking. It is one smooth, non-stop action. The sleeve never needs to be touched or moved to insert a tool bit.

The Insty-Bit chuck is a two-handed operation of sliding the sleeve axially to release the lock, inserting the bit, and then releasing the sleeve. It is a start and stop operation and definitely has a different "feel" to its operation than the Snappy chuck.

The Snappy Quick Chuck is a major ergonomic design advancement adding greatly to the convenience of use as well as the feel of its operation.

Degree of Care Likely to be Exercised by the Customer

Because the main benefits of the subject products are increased efficiency and quality of performance for repetitive tasks, the typical purchaser is likely to be more sophisticated than the average do-it-yourselfer and more like a professional user. This, plus the fact that the tools are not inexpensive, suggests that the customer will carefully evaluate his selection before

purchasing the tools. Thus, there should be even less likelihood of confusion at point of sale.

General Conclusions

As a result of the above analysis, evaluations, design comparisons, and survey of similar tools found in today's market, it is the writers opinion that the design features claimed by Insty-Bit do not meet the requirements for protection as trade dress.

There is no likelihood of confusion between the Insty-Bit and Snappy Brands at point of sale. However, there is a likelihood of confusion by users of the Insty-Bit product and its private labeled products since the true identity is not revealed.

SECTION 3. SCOPE OF ANALYSIS

This study is primarily directed to the products and product features identified by the Plaintiff in their ANSWERS TO DEFENDANT'S FIRST SET OF INTERROGATORIES (NOS. 1-13) dated January 16, 1995.

Products

Insty-Bit	Poly-Tech
Quick Change Chuck	Make it Snappy Quick Chuck
Quick Change Pilot Countersink Drill	Make it Snappy Guide

Quick Change Drill Guide

Make it Snappy Countersink

(See exhibits #10,11, 12).

Packaging

The packaging for each of the above products was also reviewed in a comparative manner.

The countersinks and drill guides of each brand are packaged and sold in sets of five different sizes. (See exhibits #10,11,12).

Criteria

The criteria by which the designs were evaluated for trade dress representation are:

•Whether or not Insty-Bit's asserted individual design elements and the design as a whole are functional

•The impact on competition if the asserted designs were protected as trade dress

•The availabily of alternative designs

•Whether or not the asserted design element function to denote the source of origin

•Whether or not the design element is arbitrary or fanciful

SECTION 4. SUMMARY of FINDINGS

Definitions: (as used in the charts on the following pages)

- **Functionality: A functional feature which competition would have to spend money not to copy but to design around. Additionally, the following categories on the charts are indications of functionality:**

Benefit to User	**Essential to Purpose**
Benefit to Manufacturer	**Quality Enhanced**

- **Benefit to User or Manufacturer: ie; increase in efficiency, safety, speed of operation, or durability; facilitation or accommodation of performance, lower cost, reduction in liability, etc.**

- **Essential to Purpose? Is the design essential to the utility of the item?**

- **Enhancement of Quality? Does the design element improve quality?**

- **Protection Hurts Competition? Would protection of the feature impede effective competition?**

- **Alternative Designs Available? Are there more than a limited number of alternative designs available which could be used without penalty?**

- **Functions as a Source of Origin? Does the alleged design element indicate a source of origin for the goods and thus avoid confusion in the marketplace?**

For purposes of presentation the list of product features and combinations thereof, found in the Plaintiff's Answers to Defendant's First Set of Interrogatories (Nos. 4-9) are used in the same sequence on the charts to summarize the findings.

INSTY*BIT CHUCK

Design Element	Resultng Product Attribute	Benefit to User	Benefit to Manufacturer	A*	B*	C*	D*	E*	F*
1. Black Oxide finish	Entire surface oxidized with black finish aesthetic functionally	Resists corrosion Machine quality look to part	Low cost finish Does not change external dimensions of part	n	y	y	n	n	n

A* = ESSENTIAL TO PURPOSE?
B* = QUALITY ENHANCED?
C* = PROTECTION HURTS COMPETITION?
D* = ALTERNATIVE DESIGNS AVAILABLE W/O PENALTY?
E* = FUNCTIONS AS SOURCE OF ORIGIN?
F* = ARBITRARY OR FANCIFUL?

2. Shape and appearance of sleeve		Efficient grip		y	y	y	n	n	n
3. Two raised, knurled bands	Grip features	Provides sure grip	Low cost method	y	y	y	n	n	n
4. Diameter of body and sleeve	small form factor	minimum interference with work piece	Minimum material cost	y	y	y	n	n	n
5. Chamfer on sleeve		Comfortable to grip Will not cut hand or damage work piece	Finished look Low cost	y	y	y	n	n	n

6. Series of 2 raised sleeve elements: knurling with smooth recess, appearance and sequence		Provides sure grip over wide span ID of manufacturer Recess helpts to locate finger	Space for manufacturer's name	y	y	y	n	n	n

INSTY-BIT COUNTERSINK ROUND BODY

Design Element	Resultng Product Attribute	Benefit to User	Benefit to Manufacturer	A*	B*	C*	D*	E*	F*
1. Black Oxide finish	Entire surface oxidized with black finish aesthetic functionally	Resists corrosion Machine quality look to part	Low cost finish Does not change external dimensions of part	n	y	y	n	n	n

2. Shape of recessed opening for set screw (Created by intersection of conical cutting tool with cylinder)	Oval shaped recess	safety	Faster assembly Reduced liability	y	y	y	n	n	n
3. Allen style set screw	Bit removed with Allen wrench	Durability Safer to use Can wrench tight w/o slipping	Low cost Speed of Assembly Reduced Liability	y	y	y	n	n	n

4. Shape of collar; raised edge-recessed-edge	Grip features	Provides grip Easier insertion and removal of bit Protected area for manufacturer's name	Recessed area for Indicia	n	y	y	n	n	n
5. Collar, round shape	Countersink stop	Depth gauge for plug No turning to scratch work surface	Low cost	y	y	y	n	n	n

6. Two flutted cutting edges		Efficient cutting and chip removal Bit remains sharper longer Smooth cutting action Structural strength	Lower cost than 3 or 4 flutes	y	y	y	n	n	n
7. Round hole on receiver for shank		Lower cost More durable	Lower cost Ease of Fabrication	n	y	y	n	n	n
8. Silver steel drill bit			Lower Cost	n	n	y	n	n	n

9. Length and diameter of countersink	Sufficient tool strenght	Allows screw heads to be set below surface Performance and durability Matches screw and plug specifications		y	n/a	y	n	n	n
10. Raised edge on relief barrel		Reduces friction, heat buildup Prevents edge damage on hole		n	y	y	n	n.	n

INSTY-BIT COUNTERSINK HEX BODY

Design Element	Resultng Product Attribute	Benefit to User	Benefit to Manufacturer	A*	B*	C*	D*	E*	F*
1. Black Oxide finish	Entire surface oxidized with black finish aesthetic functionally	Resists corrosion Machine quality look to part	Low cost finish Does not change external dimensions of part	n	y	y	n	n	n
2. Shape of recessed opening for set screw	Round shape			n	n	n	n	n	n

3. Allen style set screw	Bit removed with Allen wrench	Durability Safer to use Can wrench tight w/o slipping	Low cost Speed of Assembly Reduced Liability	y	y	y	n	n	n
4. Shape of collar; raised edge-recessed-edge	Grip features	Provide sure grip Easier insertion and removal of bit	Recessed area for Indicia	n	y	n	y	n	n

5. Hex shaped collar	Parts connects with screwdriver accessory	Countersink is easily changed to screwdriver		y	y	y	y	n	n
6. Two flutted cutting edges		Efficient cutting and chip removal Bit remains sharper longer Smooth cutting action Structural strength	Lower cost than 3 or 4 flutes	y	y	y	n	n	n

7. Round hole on receiver for shank		Lower cost More durable	Lower cost Ease of Fabrication	n	y	y	n	n	n
8. Silver steel drill bit			Lower Cost	n	n	y	n	n	n
9. Length and diameter of countersink	Sufficient tool strength	Allows screw heads to be set below surface Performance and durability Matches screw and plug specifications		y	n/a	y	n	n	n

10. Raised edge on relief barrel		Reduces friction, heat buildup Prevents edge damage on hole		n	y	y	n	n	n

INSTY-BIT DRILL GUIDES

Design Element	Resultng Product Attribute	Benefit to User	Benefit to Manufacturer	A*	B*	C*	D*	E*	F*
1. Black Oxide finish	Entire surface oxidized with black finish aesthetic functionally	Resists corrosion Machine quality look to part	Low cost finish Does not change external dimensions of part	n	y	y	n	n	n
2. Steel color of bit and steel color of spring			Lower cost	n	n	y	n	n	n

3. Oval recess for stop screw	Finished part	Safety-burr free part, no sharp edges	Removes hazardous edge Adds finished appearance Faster Assembly	y	y	y	n	n	n
4. Allen style set screw	Bit removed with Allen wrench	Durability Safer to use Can wrench tight w/o slipping	Low cost Speed of Assembly Reduced Liability	y	y	y	n	n	n
5. Exposed spring		Shavings from drill bit can easily be removed	Low cost	n	n	y	n	y	n

6. Shape of nose bushing		Centers the drill in tapered hole	Low cost	y	n/a	y	n	n	n
7. Shape of drill guide collar			Low cost Provides space for Indicia	n	n/a	y	n	n	n
8. Overall length		Accomodates full length drills		y	y	y	n	n	n
9. Compressive force of spring		Smooth locating and drilling operations	Low cost	y	n	y	n	n	n
10. Spring, shape, size, diameter, number of turns		Ejection of shavings Spring compresses to allow proper hole dep.	Low cost Proper fit with nose bushing for quick assem.	y	n	y	y	n	n

11. Hex shape into round opening		Durability, shaft not hardened	Production efficiences in manufacturing Low cost	n	y	y	n	n	n
12. Shape and size of brass thrust washer		Reduced wear Longer life	Low cost	y	y	y	n	n	n

SECTION 5. DETAILED ANALYSIS

INSTY*BIT CHUCK DESIGN ANALYSIS

Black Oxide Finish

The black oxide finish serves two important functions. First, the oxidation of the steel's surface provides protection from rust. While it will not prevent corrosion, it does inhibit it, such that it is much more desirable than untreated steel. Rust on the internal and external surfaces of a steel tool with moving parts operating within certain dimensional tolerances can seriously compromise its performance.

The oxidized black surface is used extensively in the tool industry because it allows the steel to be given a finish without changing the dimensions of the part. Any other type of plated corrosion protection must be done at the expense of strict dimensional control, since coatings and dated metals are dimensionally added to the surface of the base metal.

Furthermore, it is quite common for other plated metals to flake off under extreme conditions. When this happens and bare steel is exposed, the surface is very likely to rust Metal platings such as chrome, nickel, and zinc can vary widely in quality.

Paint coatings are not commonly used on the working ends of tools or surfaces of parts with critical fits like these in question. The dimensional changes that metal parts incur from coating processes, the lack of precise control of coating thickness, and the coating's lack of

long term durability make them a poor choice for corrosion protection on moving, interactive parts.

The second benefit provided by a black oxide finish is that the black oxide provides the function of communicating to the customer that the tool has been made using quality manufacturing processes. The many benefits of black oxide are well known in the industry and therefore the use of black oxide on tools can be associated with a manufacturer who is following industry standards. Because black oxide is a finish used on many precision tools, it suggests a high level of quality.

The use of black oxide is not mandatory in the production of tools, but it has proven to significantly improve a tool's quality. It's designation as a protected design element would substantially hurt competition in this market. Its use would not be indicative of a particular manufacturer because so many manufacturers of similar products use black oxide. Its use is not arbitrary or fanciful, but functional. (See exhibits #26, 27, 28, 29, 33, 34, 35, 36).

Notably, all quick change drill chucks that the writer is aware of are finished in black.

Shape and Appearance of Sleeve

The shape of the sleeve is derived strictly from the function it performs. Nothing has been added to the sleeve to make its design unique or decorative. The cylindrical shape has been used in order to provide easy grip without limitation to its rotational orientation Its appearance is a function of its black oxide finish, its

diameter, and its length. Restriction of this configuration would hurt competition because this is the most cost effective and straightforward design to meet performance requirements. This shape and appearance are widely used in the industry, and would not suggest a particular manufacturer (See exhibits #17, 19, 20, 23 24, 25).

Two raised, knurled bands

The two raised bands of knurling on the sleeve are provided strictly to increase grip by the user. Knurling is a process that has been used for many years and is a well-known, recognizable feature easily understood by consumers. It is cold formed on the surface under pressure and is therefore a cost-effective way of achieving a grip surface without metal removal. Knurling can only be effectively applied to the highest of adjacent surfaces on any one part. Its use as a protected element would put competition at a disadvantage because it is widely used as an economical way to increase the performance of any round tool gripped by the hand.

Two bands of knurling, as opposed to one band, allows a center, non-knurled band ideal for indicia such as identifying the origin and patent numbers. The two bands at each end of the sleeve provide a better gripping arrangement than a single band at one end of the sleeve. Two bands are common in many different types of couplers and connectors. (See exhibits # 17, 19, 23, 24, 25, 29).

Series of 2 raised sleeve elements, knurling with smooth recess, appearance and sequence

The raised bands of knurling with a smooth center area is a design which provides two main functional benefits. First the profile created by the two raised areas and the center recess provide for better location and grip by the fingers. The center recess helps the user to quickly locate the best grip area. By locating the center of the fingertip in the recess, it allows the two bands of knurling to come into full contact with the finger. The ridge created by the second, or rear band of knurling provides a sidewall which can be pushed against to move the sleeve and release the bit.

A secondary functional benefit provided by this design is that it allows a smooth surface which can easily be stamped with the manufacture's name and/or patent number. Having the manufacturer's name stamped on the part where it is not likely to be scraped away also helps the consumer in the event they are trying to identify the part after it has been separated from the packaging. (See exhibits #17, 19, 24, 25).

Diameter of body and sleeve

The diameter of the main body of the chuck and the sleeve that fits over it are determined by the diameter of the bit being held by the chuck and the mechanisms needed to retain it. Insty*Bit's chuck mechanism is protected by two U.S. utility patents. (See appendix). Any additional diameter would require additional material and/or tooling and would therefore increase

costs. Furthermore, any increase in diameter would be undesirable because the chuck would interfere with other parts in a close working environment. The smaller the better.

Chamfer on sleeve

The chamfer on the sleeve is a functional shape used to provide a smooth edge on the top corner of the chuck. A smooth edge rather than a sharp corner is more desirable for any part coming into contact or being held by the hand. A rounded edge would also serve this purpose, but a chamfer is easier and cheaper to make. Furthermore, a chamfer also provides a narrower profile to decrease the likelihood of coming into contact with parts in tight working environments (See exhibits #19, 23, 24, 25, 33).

INSTY-BIT ROUND BODY COUNTERSINK DESIGN ANALYSIS

Black Oxide Finish

See black oxide section in chuck design analysis.

Shape of recessed opening for set screw

The shape of the recessed opening for the set screw is derived from the combination of two functional shapes. The first shape is created by a recessed band around the middle part of the collar. The second shape comes from countersinking the set screw The countersink for

the set screw is necessary in order to finish the edge of the hole free of burrs for the set screw. There is no practical alternative for finishing the edge of the screw hole to a burr- free condition and providing an enhanced entry point for screw assembly. Protecting this shape would be detrimental to competition. (See exhibits #33, 38).

Shape of the collar: raised edge - recess - raised edge

The recessed perimeter band performs the function of generating a gripping edge so that the bit can be more easily removed from the chuck with a pulling action. This recessed band is necessary because the main body of the countersink is relatively small in diameter and short in length. Operation of the spring loaded chuck by itself to release the bit can, in many cases require the use of two hands. The additional task of removing the bit when the chuck's spring action is being held back makes it much more desirable to make the bit easier to grab by incorporating functional design elements such as a recessed band. A recessed band is the best way to provide grip around the circumference to aid in a pulling motion. This design also allows a recessed, protected area ideal for marking the bit with the manufacturer's name.

Allen style set screw

The Allen style set screw is widely used in the industry because of its low cost and performance benefits. When the an Allen set screw is used, a stronger force can be applied to tighten it. This is due to a more positive lock with the head due to its faceted shape and the depth of

the recess allowing the wrench to travel further into the head, as compared with a slotted screw.

Because a more positive engagement of the screw is provided by its design, slippage and thus wear of the drive surfaces is reduced. The top surface of an Allen style set screw is not as sharp as the slotted variety, therefore the user is less likely to get cut by it. The Allen wrench is not likely to slip out of the hex screw and contribute to hand injuries like a blade drive with a slotted screw might.

These reasons, along with the lower cost of the Allen head vs. the slotted head screw make the Allen head the preferred choice for many applications. Its use as a protected trade dress element of design would compromise the functionality and competitiveness of tool design.

Collar, round shape

The round collar on the shank of the countersink is used as a depth gauge to keep the countersunk hole to precise dimensions. After the hole is drilled, a plug is inserted. In order for the standard plug to fit the hole, the hole's depth must be precisely controlled. The use of a round shape on the collar is derived from the machining operation. It is the most straightforward design and is therefore the cheapest to manufacture. Some additional advantages of a round shaped collar are a smooth perimeter edge vs. the hex shaped design. A smooth edge is less likely to scratch the work surface. (See exhibits #33, 36, 38).

Two fluted cutting edges

The two flutes on the tool are used to cut and remove material in order to form the countersink hole. They are absolutely essential to the function of the tool. A different number of flutes may be used, but two flutes affords a high degree of performance with respect to forming the hole. The hole can be formed quicker by using two flutes instead of one. The two flutes also provide a smoother cutting action. Because the removal of material is performed by two edges instead of one, the bit will retain a sharp edge longer.

The two fluted design is more cost effective and provides more structural integrity than those designs with more than two flutes and provides more cutting performance than designs than with just one flute. (See exhibit #32).

Round hole on receiver for shank

The round hole in countersink bit accepts the hex shaped shank. The countersink is assembled this way to permit the joining of metals of dissimilar hardness. The bit is hardened so that it remains sharper longer. The shank should not be hardened because this would make it brittle and susceptible to breaking.

In order to join the two parts using economical production methods, a hole must be made in the receiver to accept the shank and a set screw used to lock the shank in place by running it into the shank. Because the shank is hex shaped, the hole must either align with the flats of the hex or accommodate the

perimeter of the hex shank. A round hole to accommodate the round turned portion of the hex shank is clearly the only economical way to meet the design requirements. To machine a hex shaped hole in the receiver to accommodate the hex shank would be very expensive.

Silver steel drill bit

The bright color of the drill bit is derived from the high speed tool steel from which it was manufactured. Additional treatment of drill bit is not necessary to achieve satisfactory performance. Furthermore, the vast majority of drill bits sold have the same color. Any additional coatings or treatments to the drill bit would increase costs. The silver steel color is often seen along side of black oxide because the two finishes are used extensively on a wide variety of parts (See exhibits #29, 34; 35 36).

Length and diameter of countersink

The length and diameter of the countersink itself is directly related to the function the countersink performs A different length and a different diameter would make a different size hole and thus would not meet screw head specifications. The correct length and diameter of hole allows the screw and plug used in the countersink hole to properly fit the work piece after final assembly. (See exhibits #36, 38).

Raised edge on relief barrel

The raised edge on the relief barrel is a functional design consideration. It prevents the barrel from binding during cutting operations by forming a slightly larger diameter hole. The extra clearance allows the relieved barrel to rotate freely and run cooler. (See exhibit 38).

INSTY-BIT HEX BODY COUNTERSINK DESIGN ANALYSIS

All design elements for the hex body countersink are identical to the round body countersink, except for the hex collar and the shape of the recessed opening for set screw, which are analyzed below. See Insty-Bit Round Body Design Analysis section. The design differences of the Insty-Bit hex shaped receiver and the Snappy round shaped receiver are compared side by side on the next page.

Hex Shaped Collar

The hex shaped collar has been designed for the function of accepting a screw driving attachment. This allows the countersinking tool to be quickly changed to drive screws after the hole has been drilled.

Shape of recessed opening for set screw

The shape of the opening for the set screw is generated by a conical shaped cutting tool penetrating first the hex flat and then the cylindrical portion in the recessed band, For removing burrs, sharp edges, and guiding the screw into the thread, there is no practical

alternative. Protection of such a feature directly related to economical, standard processing techniques would hurt competition.

INSTY-BIT DRILL GUIDE DESIGN ANALYSIS

Black Oxide Finish

See black oxide section in chuck design analysis.

Steel color of bit and steel color of spring

The steel color of the bit and steel color of the spring are the colors of the materials used to make these parts. Further treatment of the metal is not required and would add expense to the parts. (See exhibits #29, 34, 35 36).

The oval recess for the top screw is created by a countersinking tool working against a round surface. The countersink for the top screw is necessary in order to finish the edge of the hole for the top screw. An unfinished edge or sharp edge would create a hazard when the part was turning because it could easily catch on materials or possibly cut the hand of tile user. (See exhibits #33, 38).

Allen set screw

See Allen set screw section in round countersink design analysis.

Exposed spring

The exposed spring is a low cost functional design allowing openings around the drill bit for easy removal of shavings. Other designs without an exposed spring are available, but these designs are more expensive to produce.

Shape of nose bushing

The shape of the nose bushing is purely functional to locate the drill bit in the center of the tapered recess of the hardware being installed and to attach the spring onto the back side of the bushing.

Shape of the drill guide collar

The round shape of the drill guide collar is the most efficient and straightforward design. for this part. Any other shape would be more expensive to produce and would add unnecessary complexity. The round shape also provides a smooth surface for stamping of the manufacture's name.

Overall length

The overall length of the drill guide is a function of the length of its components. All components and their corresponding lengths have been chosen for their optimum performance characteristics Any additional length would incur increased costs without corresponding performance benefits. Any reduction in length would reduce the performance of the tool.

Compressive force of spring

The compressive force of the spring has been chosen on the basis of its ability to meet stiffness requirements for adequate control of the nose bushing tip as the locating and hole drilling operations take place. Any more or less compressive force could reduce the effectiveness and smoothness of the locating and drilling operations.

Spring shape. size, diameter. and number of turns

The spring shape, size, diameter, and number of turns characteristics were chosen to meet the performance requirements for locating and drilling operations and to match up with the diameter of the nose bushing tip. Different size, shape, and diameter springs would not perform as well, may not fit the nose bushings correctly and may increase the cost of the drill guide. The number of turns in a spring is one of the factors in the cost of a spring. An increase in the number of turns past what is necessary to provide good lateral stiffness would likely increase the cost of the spring.

Hex shape into round opening

See section in design analysis of round countersink.

shape and size of brass thrust washer

The shape and size of the brass thrust washer is determined by the shape and size of the spring connected to it on one end and the shape and size of the drill guide collar it must fit into on the other end. This brass part performs a critical function by allowing the body of the guide to turn freely and the spring and nose bushing to remain stationary. Any other size and shape of the brass thrust washer would alter its performance or increase its cost. The brass part is also easy and cheap to tool up.

Chucks Summary

Date	Reference	Feature Shown	Part	Type
1936/	ARO Coupler	rounded leading edge;knurling-band-knurling	retractable sleeve	air hose coupler
Feb. 21, 1989	U.S. Patent No. 5,062,749 Sheets	rounded leading edge;knurling-band-knurling	Collar	chuck tool coupler
Feb. 5, 1962	U.S. Patent No. 3,180,600 Kopeck	rounded leading edge;knurling band-knurling	retractable shell/sleeve	gripping clutch device
Aug. 23, 1988	U.S. Patent No. 4,765,657 Cruse	chamfered leading edge;knurling band-knurling	retractable sleeve	quick connect coupling
March 14, 1916	U.S. Patent No. 1,174,997 Lackner	knurling-bank-knurling	sleeve	chuck

May 8, 1956	U.S. Patent No. 2,744,770 Davidson	chamfered leading edge;knurling band-knurling	safety hose coupling	coupler
Mar. 20, 1923	U.S. Patent No. 1,449,136 Yates	chamfered edes; knurling-bad-knurling	collar	punch
Sept. 9, 1941	U.S. Patent No. 2,255,333 Scheiwer	retractable sleeve; knurling-band-knurling	sleeve	coupler
Aug. 23, 1966	U.S. Patent No. 3,268,246 Obeissart	knurling-band-knurling	ring/sleeve	connector
Sept. 25, 1973	U.S. Patent No. 3,761,117 Schendure	retractable sleeve, chamfered edge, knurling-bad-knurling	sleeve	quick connecting fitting

Oct. 26, 1993	U.S. Patent No. 5,255,714 Mullins	retractable sleeve, knurling-bad-knurling	sleeve	coupling
June 21, 1988	U.S. Patent No. 4,752,165 Wanner	clamping sleeve, chamfered edge, knurling-band-knurling	sleeve	coupler

Countersinks Summary

Date	Reference	Feature Shown	Part
Dec. 9, 1958	U.S. Patent No. 2,863,340 Ingram	shank, cylindrical collar, flute, set screw	drill bit/ countersink with raised edge or land
Feb. 26, 1974	U.S. Patent No. 3,794,438 Knutsson	cylindrical colar, shank, flute pair, set screw	drill bit/countersink
June 24, 1948	U.S. Patent No. 2,661,642 Marcucci	cylindircal collar, flute pair, set screw	drill bit/countersink
Apl. 8, 1986	U.S. Patent No. 4,580,933 Wilkins	cylindrical collar, raised collar edge, flute pair, set screw	drill bit/countersink
Dec. 10, 1991	U.S. Patent No. 5,071,295 Grieg	cylindrical collar, flute pair, set screw	drill bit/countersink

Feb. 28, 1978	U.S. Patent No. 4,076,443 Halpern	body shank, cylindrical collar, flute pair, set screw	drill bit/countersink
Nov. 30, 1993	U.S. Patent No. 5,265,988 Schmigalla	shank, cylindrical collar, flute pair, set screw	drill bit/countersink

WOODSHOP NEWS
MAY 19, 1992

Hex-shank bits pushing into fresh ground with new options

By Mage McCormick

"I had envisioned basically something like an air hose coupling," said Wienhold.

Update on Blackening Ferrous Metals

By MARK RUCHLAND
Birchwood Casey
Eden Prairie, Minnesota

The coming year will continue to see increasingly stringent air and water regulations for all types of metal finishers including those operating blackening lines. Manufacturers of metal components are quickly discovering that it is smart to deal with suppliers who can offer complete turnkey process systems which include effluent treatment. More than ever, the key words in metal finishing are "ZERO DRAIN POLLUTION."

There are several ways to reduce the concentration of pollutants but only a few ways to achieve a zero discharge of hazardous materials in the drain. Ion exchange has proven to be low in cost and effective for treating rinse waters containing low levels of pollutants. Under certain conditions, the line can be exempted from the normal sewer sampling and testing requirements. This technique can be used with good results on blackening lines of all sizes. Details are available from each supplier of the process. Most users demand an "operator friendly" process which can be operated without serious worker safety hazards and depend on the chemicals supplier for assistance in operator training and technical support. Consequently, many suppliers have tailored their product offering to conform to these demands and to provide a better value for the customer.

Black finishes are gaining in popularity because they add value to iron or steel components in the following ways:

CORROSION RESISTANCE. A black oxide finish will withstand up to 200 hrs of neutral salt spray (ASTM B117) or several hundred hours of humidity (ASM D1748), depending on the sealant used. The sealant is primarily responsible for the corrosion resistance while the underlying black coating acts as an absorbent base, holding the sealant in contact with the metal substrate. The result is a strong, resistant barrier against atmospheric humidity and corrosion.

PRODUCT APPEAL. The satiny smooth black oxide finish is attractive as well as durable, a combination required by more companies in highly competitive markets.

DIMENSIONAL UNIFORMITY AND STABILITY. Tooling, machine components and other parts manufactured to precise dimensions cannot tolerate the variable thickness of electroplating or the excessive thickness of paint. Black oxide finishes have a uniform, negligible thickness.

ECONOMICAL. Compared to nearly all other finishes, black oxide finishes can applied at significantly lower operating costs.

A black coating can be formed on steel parts in certain types of heat treating processes. However, most blackening is done after the heat treat cycle in order to give the best control over the results on a variety of alloys. The three types of blackening processes in common use are:

1. COPPER/SELENIUM BLACKENING. This process uses a room-termperature, acidic bath to form a clack copper selenide (CuSe) coating. Reaction times are generally one to two min.

2. CAUSTIC BLACK OXIDING. A caustic soda bath of 6-8 lb per gai and operating at 285F produces a black iron magnetic coating in 10-20 min.

3. STEAM BLUING. This method utilizes a pressure reaction vessel. The parts are sealed inside, heated to 600-800F and steam is injected into the vessel. The chemical reaction forms a black iron magnetite Fe_1 O on the surface in about 10-20 min.

Each of the three processes has widely varying heat and chemical requirement that can enhance or detract to the value adding qualities of the finish.

Though the exact chemical compound on the surface varies between the three methods described, all deposit a coating that chemically becomes a part of the steel surface. The coating thickness is a negligible 0.000030 inch. However, the property that is essential to the performance of any black coating is its porosity and ability to absorb a subsequent coating of other corrosion inhibitor.

PROCESS DESIGN. Though the basic consequence of the process line is usually very predictable, individual steps can be influenced by factors related to parts design and work flow patterns. Some of the more common factors are:

•Mix of alloys used, hardness and reactivity.

•Condition of the surface prior to blackening for example ,type of metalworking fluids used, or presence of oxides such as rust, heat treat scale or machining fines.

•Volume of parts produced per shift.

•Method of parts handling (racks, baskets, conveyors).

•Requirements of the final finish in terms of appearance, gloss and level of corrosion resistance.

The tank layout can take several forms to accommodate any of the factors listed above. Because conditions vary widely from one plant to the next, individual steps in the blackening process can be quite different. Few lines are exactly the same. For example, many parts are not rusty prior to blackening and may require only degreasing in order to be ready for blackening. If there is pre-existing rust or other oxides, the blackening line should contain a provision for removing them. Many hardened or high-alloy steels require chemical activation prior to blackening in order to ensure a good bond between substrate and finish. If the parts are difficult to clean due to the presence of heavy grease or other deep-drawing compounds, this should be reflected in the line in the form of heavy duty cleaning stations.

By taking all these various aspects into consideration the blackening line can be designed to do several jobs and produce high-quality finishes while allowing the work to flow smoothly through the system.

Let's look at the individual steps in a blackening line.

1. CLEANING. Parts must be cleaned of metalworking fluids prior to blackening. Acceptable methods include alkaline detergent soak cleaning, spray cleaning, electrocleaning, solvent degreasing and ***plasting. Each has its own advantages. Water soluble coolants and cutting oils, for example ,are removed in an alkaline detergent soak. Insoluble particles such as carbon soot or machining fines come off best in electrocleaners, spray cleaners or agitated soak cleaners. Abrasive blasting is best for removing rust, heat treat scale or mill scale. the detergent soak

cleaner is preferred because it does a thorough cleaning job and is not hazardous or costly to operate.

2. RINSING. A clean water rinse between two adjacent chemical tanks is a must in any finishing line. Ordinary tap water is all that is needed. Successful operation depends on proper chemical balance of each bath with a minimum of contamination by previous baths. Most baths in the line can absorb some carryover without a loss in performance, but gross contamination must be avoided for best results.

The recommended rinse is provided by a bottom-fed water tank with an overflow through at trough at the top, fed by one to three gpm. The flow rate will depend on the type of cleaning solution the parts carry out. Higher cleaner concentrations require higher flow rates. Likewise, high-density or bulk-handling methods such as basket or barrel processing may require higher flow rates than racked parts or multiple rinses.

The condition of the rinse water can be monitored by pH or conductivity and the flow rate adjusted accordingly.

3. ACTIVATION. The steel surface must be in a reactive state, so that it is chemically receptive to the blackening reaction. Only then is it possible to deposit a black coating that is uniformly adherent and of acceptable quality.

The main function of activators is minor oxide removal and adjustment of the pH of the surface. There is always a small amount of residual alkaline salt and wetting agent left in the microscopic pores of the metal after cleaning.

Neutralizing these salts with mild acid aids in initiating the blackening reaction since the blackening

solution itself is a mild acid. If the blackening solution is forced to neutralize residual alkaline salts, the main reaction will be delayed and possibly altered enough to significantly reduce the quality of the deposit. A surface with a mildly acidic pH factors the development of a tight bond between metal and coating.

In many cases, degreasing in an alkaline cleaning solution is all that is required, especially if the metal is a fairly reactive variety. A general rule is that reactivity of the metal is lower when the alloy is higher or the surface is harder or smoother. Thus, high-speed steels are less reactive than medium-carbon tools steels, and the latter are less reactive that low-carbon machined steel. Some less reactive steels will not blacken properly unless their reactivity levels are increased with an activator.

4. RINSING. The final rinse is very important. Because the blackening solution depends on chemical activity and balance significant contamination of the blackening bath can result in poor quality coatings. It is important that this rinse tank be kept as clean as possible in order to minimize the possibility of contamination.

5. BLACKENING. This is usually a time operation, especially in cold blackening liens, in which the solutions react very rapidly-30-90 sec. Hot oxide solutions usually require dwell times of several minutes. Longer times may be beneficial in some cases, if confirmed by testing. Since the blackening chemicals (hot or cold represent 70 pct of the overall chemical cost of the line, it is always advisable to try to minimize chemical usage by using the shortens immersion time that will do the job.

6. SEALING. Usually, a light oil or dry-to-touch sealant is used to displace water and seal out atmospheric humidity. Many different types are manufactured. Most are available in either solvent or water-borne versions. Generally, solvent-borne sealants have inherently better resistance to humidity than water-borne products. For this reason it is important to choose the sealant appropriate to the intended service life of the component. the manufacturer of the rust preventative can offer guidelines in this regard.

Depending on the processing steps used, the entire cycle usually takes 10-30 min. Once sealed, parts are ready to proceed directly to the next operation.

Even though blackening uses acidic solutions at times, hydrogen embrittlement is rarely a problem.

GETTING HIGHER QUALITY

By following a few rules, the user can expect high-quality finishing with part uniformity and consistency from part-to-part.

1. Cleaning is the most important step. the best way to judge the effectiveness of the cleaner is to watch the parts as they come out of the following rinse. Parts should be uniformly wet. If the water beads up at all, it usually indicates residual oil on the surface.

2. Keep rinse tanks clean to minimize carry-over and cross-contamination of baths.

3. When immersing the parts in the blackening bath, allow them to come to a uniform gray/black color, then rinse and seal. the sealant will darken the coating to a full black. this technique minimizes chemical consumption and costs.

4. Maintain all solutions on schedule and keep a log of all additions and maintenance.

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
THIRD DIVISION

Insty*Bit, Inc.,

Plaintiff

vs.

Civil No. 3-94-1427
Judge Richard H. Kyle
AFFIDAVIT OF
EDWARD L. QUIRING

Poly-Tech Industries, Inc.,

Defendant.

STATE OF MINNESOTA
ss
COUNTY OF HENNEPIN

I, Edward L. Quiring, being first duly sworn upon oath, depose and state as follows:

1. My name is Edward L. Quiring and I am the principal of Defendant Poly-Tech Industries, Inc. in the above captioned matter.

2. As an educational background, I graduated from Bethel College located in St. Paul, Minnesota, in 1954 with. an Associate of Arts degree. Following my graduation from Bethel I enrolled in the University of Minnesota pursing a course in Liberal

Arts which I later changed to Mechanical Engineering. I graduated from the University of Minnesota with at Senior Certificate in Mechanical Engineering which I received in approximately 1958.

Between 1956 and 1958 I was employed with Northern Ordinance located in Fridley, Minnesota, in the Engineering Test Department. My duties at Northern Ordinance involved designing test apparatus for equipment manufactured by the company for resale.

I began purchasing metal working equipment for starting my own business in approximately 1957. Shortly thereafter, I initiated efforts to advertise my ability to assist individuals in developing and producing products.

3. In 1962 [invented a meat tenderizing attachment for a hand-held electric food mixer which received U.S. Letters Patent No. 3,066,350. This patent was granted on December 4, 1962.

For two years I worked with Nu-Line Industries, Inc. in Minneapolis, Minnesota as a design and manufacturing engineer. My duties with Nu-Line involved designing electrical connectors according to military specifications and overseeing the manufacturing processes, from raw bar stock into finished products.

In 1959, myself along with my father-in-law started a metal forming subcontract business identified as Diversco Industries. Diversco designed and

manufactured tooling, developed manufacturing methods, and manufactured parts according to customer specifications. the types of parts manufactured varied from water weld points to pilot tubes for supersonic military aircraft.

4. In February 1962 I began a precision screw machine shop identified as Poly Tech Industries, Inc. Since 1962 Poly-Tech Industries has performed machine shop manufacturing services for businesses identified as Control Data Corporation, Honeywell IBM, UFE, and Toro. In the precision screw machine shop business a customer normally will solicit competitive production bids. It is essential therefore to submit a bid which is high enough to make a profit but not so high where the work is lost to a competitor's bid. The machining of metals is an exact science governed by well known speeds and feeds. Simply stated, since the cutting speeds and feeds do not change, the most practical way to underbid a competitor is to make the part in less time. Manufacturing a part in less time requires ingenuity in combining and overlapping machining operations, and eliminating unnecessary handling. In certain situations design changes may be implemented to eliminate unnecessary handling which the customer will approve.

5. In 1982 Poly-Tech Industries began to manufacture and market a tool used by mechanics, identified as the Poly-Punch having U.S. Patent No. 4,355,466 which was invented by my son, Michael Quiring. I have attached to this Affidavit a photocopy of his patent as Exhibit 23. This tool continues to be sold by Poly-Tech Industries today. We have used methods such as national mailing, exhibition at the

National Machine Tool Builder's Show, and sales calls to distributors such as Armstrong Tool, Matco, and Mac Tools to sell this tool. I have attached to this Affidavit a photograph of a Poly-Tech Poly-Punch as Exhibit 25 which shows that the tool is formed and treated with black oxide and incorporates a combination of knurling-band-knurling features on the body of the handle to assist an individual in grasping. The band on the handle is provided to permit the marketing identification of Poly-Punch along with the U.S. patent number.

6. In the middle of 1988 Poly-Tech was approached by Jim Wienhold to manufacture parts for a quick-release chuck. At that time Mr. Wienhold was made aware that Poly-Tech Industries was manufacturing parts for Honeywell, IBM, UFE, Control Data, and Mercury Minnesota. Starting in 1988 Poly-Tech made component parts for a quick-release chuck. These parts were supplied to Mr. Wienhold along with an invoice. Mr. Wienhold then assembled these parts into completed products. The parts were fabricated by the cutting of raw bar stock into the component parts on single and multi-spindle screw machines. I have attached to this Affidavit as Exhibit 16 a description of the features and general operation of a multi-spindle screw machine.

7. Beginning in 1989, Poly-Tech began to purchase some of the assembled products back from Mr. Wienhold for resale. Poly-Tech operated its sales business as separate from the job shop machining business. In 1989 in order to facilitate the sales of products which Poly-Tech had purchased from Mr.

Wienhold, Poly-Tech expended time and money to develop and design the art work and packaging for point-of-sale display of the quick-release products. Poly-Tech Industries did not receive any direction or control from Mr. Wienhold with respect to the art work or packaging to be utilized at the point-of-sale for the quick-release products. Since 1988 Poly-Tech Industries Inc. has never had a written agreement of any sort with Jim Wienhold or Insty*Bit.

7. Beginning in 1990 Poly-Tech would attend trade shows to facilitate sales of products which had been purchased from Mr. Wienhold. Poly-Tech Industries did not receive any direction or instructions or restrictions from Mr. Wienhold with respect to resale activity of the products which had been previously purchased for resale. Woodworking trade shows occurred almost on a weekly basis which were attended by Poly-Tech in order to sell quick- release chuck products. At a typical trade show Poly-Tech would sell products to consumers and would solicit distributors such as hardware stores and/or representatives for sales to distributors. Poly-Tech attended trade shows throughout the country and initiated efforts to establish a national distribution chain with respect to products purchased from Mr. Wienhold. During this period or time Poly-Tech Industries Inc. expended a substantial amount of money in travel expenses and time to convince a distributor to carry a product line of the quick-release chuck and related accessories. Samples of products were provided for testing and evaluation to distributors, contracts were negotiated and personal contacts were made in order to facilitate the sale of the quick-release chuck products through the national

distribution system as developed by Poly-Tech Industries. Poly-Tech Industries also attended trade shows where Poly-Tech communicated that territories were available for manufacturing reps for sale of quick-release products. Mr. Wienhold during this entire period of time knew that Poly-Tech was attempting to establish a national distribution chain and that Poly-Tech was soliciting manufacturers reps for dealers and hardware stores throughout the country. During this period Mr. Wienhold was aware of the existence and identity of the Poly-Tech manufacturers reps and the acquisition and identity of Poly-Tech's dealers and customers throughout the country.

8. Beginning in approximately 1991 Mr. Wienhold initiated efforts to establish his own distribution chain for his quick-release chuck products. During this period of time Wienhold's manufacturers reps would place calls on Poly-Tech's dealers and hardware stores communicating that the dealers and hardware stores were now required to purchase quick-release products directly from the Wienhold manufacturer reps who had an exclusive distributorship with respect to that territory. The Wienhold manufacturing reps would communicate to the Poly-Tech dealers and hardware stores that they did not have the ability to buy any further product from Poly-Tech. On numerous occasions I challenged Jim Wienhold with respect to this unfair business practice. On almost every occasion I was advised that the customers had the right to purchase products from whomever they chose. At that time I was concerned that Mr. Wienhold would refuse to sell to Poly-Tech the quick-release chuck do to his ownership of his two

U.S. Patents, Nos. 4,900,202 and 5,013,194. It is my understanding that Mr. Wienhold as a patent holder is not obligated to sell his patented product to any individual or business.

Between 1991 and late 1993 Mr. Wienhold's exclusive sales representatives effectively stole all of Poly-Tech's dealers and hardware stores throughout the country with the exception of the areas of Ohio, New York, and New Jersey.

Poly-Tech Industries had expended thousands of dollars establishing and building accounts, dealers, distributors, and manufacturing reps which were lost to the unfair business practices of Jim Wienhold and his exclusive territorial manufacturing reps.

9. Between the period of 1989 through 1991 Poly-Tech created at their own expense the packaging for the Insty*Bit products and, the advertising point-of-sale cards for the Insty*Bit products. Poly-Tech incurred these expenses in order to promote their own sales activities.

Jim Wienhold and Insty*Bit have utilized all of Poly-Tech's point-of-sale advertising, catalogs, and packaging from 1989 and continue to utilize the point-of-sale displays and advertising point-of-sale cards.

10. In 1992 I initiated engineering efforts to invent a new type of quick-release chuck. I was successful in my efforts. The quick-release chuck which I invented includes significant advancements with respect to the internal mechanism of grasping a

standard ANSI B107.4 hex shank work piece. One of the unique features of my invention concerned the ability to insert the industry standard hex shank of a workpiece into the chuck without the prior retraction of the sleeve for locking engagement of the workpiece. My invention permits one-handed insertion of the hex shank of a workpiece for locking engagement to the quick-release chuck. All other known quick-release chucks require the sliding sleeve to be physically moved during the insertion of the tool requiring two handed operation. The internal mechanism for my quick- release chuck is quite unique as may be seen in Exhibit 7. During the fall of 1993 my attorney filed a patent application for my invention related to the quick-release chuck. This patent application has been approved by the U.S. Patent and Trademark Office and I have received a Notice of Allowance and Issue Fee Payment Notice Due which I have paid. I anticipate the issuance of a U.S. Patent concerning my invention related to the quick-release chuck sometime in May of 1995. I have attached to this Affidavit a Notice of Allowance concerning my invention related to the quick-release chuck. (Exhibit 4)

11. Poly-Tech designed the clamshell packaging for the quick-release drill chuck and its related accessories in 1990. At that time Poly-Tech designed the clamshell package to have a removable insert in order to accommodate either quick-release chucks, countersinks, or drill guides. Poly-Tech industries paid approximately $2300 for the tooling for this clamshell package. The tooling for the quick-release chuck and related accessories purchased by PolyTech from Jim Wienhold was transported to a

plastic vacuum former which sold the formed packages to Poly-Tech for nesting of the quick-release chuck and related accessories. At that time a sticker was placed upon the package which indicated Insty*Bit as well as Poly-Tech Industries as a source of origin for the goods. I have attached to this Affidavit a photocopy of the advertising sticker utilized in 1990 as Exhibit 27. At all times during the period between 1988 and 1994 Poly-Tech Industries was responsible for their own advertising, their own brochures, their own order forms and all of their own methods of doing business. During the period between 1990 and 1994 Jim Wienhold/Insty*Bit purchased from Poly-Tech the header card for point-of-sale display advertising of the Insty*Bit quick-release chuck and related accessories.

12. Attached to this Affidavit are photographs of a Martindell Quick-Release Chuck, Patent No.4,692,073. (Exhibit 20) This quick-release chuck was first patented in 1987 or approximately one year prior to the filing date of Mr. Wienhold's patent. This quick-release chuck is manufactured by Advance and is sold by Vermont America and Craftsman. Exhibit 1 shows photographs of the Advance, Vermont America, Craftsman and Manindell quick-release chucks. As may be seen in the attached photographs, this chuck is black and is approximately the same size and has the same characteristics as the Wienhold quick-release chuck.

13. Beginning in approximately 1990 Mr. Wienhold initiated efforts to sell. his quick-release chuck products through private labeling. Private label

offerings occurred through Milwaukee, Malco, Lawson, ATO, Porter-Cable, Irwin/American Tool, and Triumph. PolyTech requested that they be permitted to sell quick-release products under a private label which Mr. Wienhold has continuously refused to grant.

14. Since 1988 Poly-Tech Industries, following their purchase of assembled quick- release chucks and related products has been able to set their own price with respect to the resale of these items to ultimate consumers. Poly-Tech Industries has been under absolutely no control with respect to the resale price to be charged consumers.

Poly-Tech Industries purchased quick-release chucks and related accessories from Jim Wienhold based upon the following formula. A first discount price is 40% off the list price for the item. The 40% discount is fairly standard practice in the industry. This first discount price is normally provided to a purchaser such as a hardware store. A wholesaler purchasing a product normally receives an additional discount price of 25% off. An example of a wholesaler would typically be Hardware Hank or United Hardware. An OEM purchaser would receive an additional 25% the price provided to a wholesales. Poly-Tech was able to acquire products from Wienhold at the OEM price of 40% less 25% less 25%. One of the reasons why Poly-Tech received the OEM price was due to the fact that Poly-Tech had permitted Mr. Wienhold/Insty*Bit to use and utilize Poly-Tech's clamshell packaging for the Insty*Bit products.

15. During the period between 1990 and 1994 Poly-Tech Industries attended trade shows in order to sell quick-release chucks and related accessories. The trade shows occurred on almost a weekly basis. On numerous occasions during this period Jim Wienhold/Insty*Bit indicated that he did not have sufficient inventory of products to satisfy Poly-Tech's needs for sales at the weekly trade shows. The expenses for reservation of a booth at a trade show were substantial and were incurred on a normal basis many months prior to the show date. Normally the expenses for a trade booth at a show are not refundable. Poly-Tech Industries was then forced into a situation where they were required to, at their own expense, carry inventory of component parts in order to avoid the waste of resources with respect to not having product available for sale at the weekly trade shows. If Jim Wienhold/Insty*Bit was short of inventory, then Poly-Tech would provide to Jim Wienhold a portion of Poly-Tech's extra inventory which would be assembled by Mr. Wienhold into component products for sale at the weekly trade show. Over time, Jim Wienhold/Insty*Bit began to rely upon Poly-Tech's inventory which was carried at Poly-Tech's expense. On numerous occasions Jim Wienhold/Insty*Bit due to their own failure of advance planning, would be short of inventory and would request immediate delivery of parts in order to fulfill an order. Poly-Tech Industries, Inc. lost substantial amounts of money by carrying inventory at their own expense. However, this business practice was necessitated in order to insure that an adequate volume of products would be available for sale at the weekly trade shows.

16. The manufacturing of parts from raw metal stock usually occurs through the rotation of a bar of raw stock within a multi-spindle screw machine. The size and dimensions for the quick-release chuck are selected for purely functional reasons. An increase in the size of the diameter of the sleeve or hub for the quick-release chuck increases the time required for a multi-spindle screw machine to "cut" each part which results in increased costs for time and materials. As the circumference of the part increases the rotation of the part within the screw machine is required to be reduced in order to avoid the burnout of either the tool used for cutting the part or the part itself. These considerations are known as speeds and feeds in the industry. An increase in diameter of a metallic part which is rotated within a screw machine, necessitates the slowing down of the rotational cycle time for the part which reduces the volume of products that can be manufactured in a given amount of time. The manufacturing expense is then increased compared to the cost for the production of an identical volume of products. The diameter of the sleeve is therefore based upon the cost versus time considerations in light of the inherent durability of the metal exposed to the machining process.

The inclusion of flat surfaces on round surfaces parts is called either broaching or milling.

17. The manufacturing steps for cutting parts for a quick-release chuck is a moderately complicated procedure. At the first position of a screw machine the cylindrical shape of the hub and shank is formed. Simultaneously at the first position the hole

for the hexagonal shape is machined into the hub and a chamfered surface is applied to the leading edge of the hub. These machining operations occur at the first position which eliminates the necessity of extra manufacturing time. The broaching of the hex-shaped bore occurs simultaneously with the formation of the outer diameter dimensions for the hub and shank portions.

In the next operation, flats are applied to the shank through a milling process. The flats are applied with the milling cutter which travels across the length of the shank putting a flat surface on the shank. As the part is indexed, another flat surface is applied to the shank and so on until the desired number of flats have been produced.

The placement of a hexagonal shape upon the shank is an extremely costly and inefficient process. In order to form a hex shape on the shank, two milling machines are required to be exactly aligned and positioned on opposite sides of the shank during the milling process. The shank then receives two flat surfaces simultaneously, requiring the use of two oppositely aligned milling cutters for milling the flat surfaces. In addition, the two cutters are required to traverse the shank simultaneously and must be exactly aligned with the center of the hole through the hub. Otherwise, the result will be wobble during the final use of the quick-release chuck product. It is very difficult and extremely inefficient to place six flat surfaces on a shank. The inclusion of three flat surfaces on a shank reduces wobble, eliminates slippage in a drill chuck, increases the utility of the

part, and reduces the cost by eliminating utilization of dual cutters, and manufacturing time. In addition, there is no reason to require six flat surfaces on the shank of a quick-release chuck in that only three of the surfaces are to be gripped by the three jaws of a standard jacobs-style chuck for an electric drill. The inclusion of two flat surfaces would reduce the utility of the invention in that the two flats would be off center the minute you put the shank into the three jaws of a standard jacobs-style drill chuck. If a shank including only two flat surfaces was placed within a standard jacobs-style three jaw chuck, a mismatch would occur which would reduce the grasping and placement of the quick-release chuck off center with respect to the drill.

A second operation of a screw machine occurs after the part has fallen off the bar stock and is taken to a subsequent machine for further operations.

It is desirable in the manufacturing process to eliminate as many operations as possible to reduce the manufacturing time. As the number of operations to be performed on a given part increases, so does the cost, due to further manual and machine times required for completion of the part.

The leading edge of the hub is chamfered so that the sleeve will be able to pop on to the hub without catching on the front circular corner. The chamfer leading edge assists in die engagement between the hub which is within the inside of the sleeve and the sleeve. A chamfered leading edge exists on the hub in order to eliminate a square leading edge. In addition, the

chamfer on the leading edge of the hub eliminates sharp edges and provides a smooth edge for fingers This portion of the hub is always going to be touched by the human hand; therefore it is desirable to get rid of as many sharp edges as possible in order to minimize risk of injuries to individuals.

17. Approximately two days is required to set up a multi-spindle screw machine for manufacturing of component parts. Therefore the minimum volume of parts usually required for manufacturing in order to economically justify a two-day set up time for a multi-spindle screw machine is approximately five to fifteen thousand parts.

The size of the sleeve is dictated by functional concerns. The sleeve is required to be as small as possible so that it does not get in the way of the operator during use of a tool In addition, the sleeve is required to include a sufficient wall thickness between the interior diameter and exterior diameter, which is dictated by the dimension of the outer diameter of the hub. The sleeve is required to have a sufficient thickness so that it does not fracture or fail during the marking process which leaves about a .050 inch wall. Otherwise, any thinner wall would be breached upon the application of the marking to the sleeve. A thicker wall of the sleeve necessitates the slowing down of cycle times because the part is required to turn slower during the machining process which increases the cost of manufacturing and necessitates the use and waste of raw materials and increases the manufacturing time. Therefore, to compensate for increased costs, the

expense for a particular part would be required to be increased.

18. During the manufacturing process the entire outside diameter of the sleeve is knurled prior to the cutting of the sleeve from the bar stock. Simultaneously with the knurling of the entire exterior of the sleeve, a bore is drilled into the rearward or trailing edge of the sleeve. A collet is utilized to grasp the bar stock on a multi-spindle screw machine. The collet allows the bar stock to be slid through the collet during the manufacturing process and additionally permits the bar stock to be spun during the application of operations during the manufacturing processes.

At the second step of the first operation, a band of smooth surface is removed from the entire knurled portion of the exterior diameter of the sleeve. Simultaneously within the second step, the bore through the sleeve is increased in diameter. At the third position the bore is further increased in diameter. At the fourth position the bore is increased to the desired inner dimensions for the sleeve. The chamfer leading front edge of the sleeve is placed simultaneously with the fourth position. The last position is the location where the sleeve is cut from the bar stock or "parted".

19. The diameter of the sleeve for the quick-release chuck is as a small as possible while simultaneously retaining enough material to have strength and function without fail. The selection of the diameter of the sleeve is functionally dictated by the manufacturing process for utilization of the least

amount of stock and maximizing the production of the highest volume of parts in a given period of time.. The length of the sleeve is dictated by functional considerations and is as short as possible to minimize the protrusion of the quick-release chuck from the chuck of a drill. The more the quick-release chuck protrudes from the end of a drill, the more likely the quick-release chuck is to be clumsy, reducing its utility.

During the chamfering and cutting off process of a part from bar stock, if the collet is engaged to only a portion of the part, the cutoff tool tends to knock the part out of location causing a wobble. If the part has not been cut off squarely, the chamfering tool places a large chamfer on one side of the part and a smaller chamfer on the other side of the part. In order to obtain even tolerances and a correct chamfer, it is optimal to have either the entire exterior surface of the sleeve knurled or have two bands of knurling so that the colleting process can grasp the part evenly. This maximizes the grasping of the collet to the part and minimizes error in tolerances and facilitates the concentric grasp of the collet to the part. It also promotes the ability to obtain even tolerances and reduces waste of machine time, waste of materials, and improves the manufacturing process.

A sleeve is gripped by the collet on the outside diameter in order to attempt to maximize the concentric grip. If the grasping area of the collet is shortened, it tends to allow the part to wobble during the cutting machining step and if wobbling occurs during the parting process, then an uneven or

out-of-aligned part will result which is detrimental and which may not be utilized during the continued manufacturing process. If wobbling occurs, then the only alternative is to throw away parts, resharpen, and realign the machine in order to obtain true running parts. It normally takes approximately two to three hours to realign and resharpen tools. Reducing the area available for the collet to grasp during the parting process, increases the risk that three or four prior steps during the first operation will have gone to waste and that a tool will have to be resharpened and realigned, resulting in additional down time during the manufacturing process.

20. The cost of a component part is dictated by a cycle time. Cycle time is considered to be so many parts per minute.

21. Marking indicia such as patent numbers and trademarks names may not be applied to the shank. The only available place for marking a patent number or trade identification on a shank would be on the flat surface. Marking in this area would risk causing a wobble during use of the part because the gripping surface for the jacobs-style chuck had been altered. Every imperfection placed upon the shank of a tool is multiplied by a factor as the tool extends from the jacobs-style chuck of a drill. It's very important to have the shank perfectly on center and perfectly smooth for engagement to the jacobs-style three-jaw chuck.

22. Stainless steel metal is required to be turned in a multi-spindle screw machine at a much

slower rate of speed than standard steel. It is possible that the use of stainless steel would result in the increase of manufacturing time by approximately 50% which results in a reduced number of parts by a factor of two; therefore, if one day was required to cut parts, the utilization of stainless steel would require two days to cut the same volume of parts. In addition, the stainless steel is estimated to exceed the price of regular steel by approximately $.90 a pound. Therefore, there is three times more expense in material for utilization of stainless steel as compared to regular steel.

23. Plating of metal surfaces is expensive and is a slow procedure. Plating deposits material on top of a base metal that you are utilizing. During the deposit of metal material on another metal surface, the tolerances are naturally affected. The quick-release drill chuck includes sliding surfaces and press surfaces positioned in close tolerances. Plating would add metal to the surfaces which would require the manufacturer to take into consideration the tolerances to avoid binding or the failure of the parts to fit together. The addition, the tolerance between parts of the quick-release chuck is required to be extremely accurate. Furthermore, the plating processes are often not exact, resulting in inexact tolerances. In utilization of black oxide maximizes the tolerances in the manufacturing process while simultaneously providing a desired level of rust inhibition for a part. I have attached to this Affidavit as Exhibit 9 a technical paper related to black oxide metal treatment. I have also attached to this Affidavit Exhibit 10 related to IBM standards related to the building of parts.

24. Utilization of paint to coat a metal surface is not acceptable due to the fact that paint will rub or scrape off of a metal surface especially on bearing surfaces. In addition paint adds a thickness dimension to a part which again affects the tolerances and tensions. In addition, the application of paint to a part would be more costly.

25. With respect to the countersink, the reason that material is removed from the collar is to provide a recess so that identification markings may be placed below the surface of the stock. A collet may then grasp the true diameter of the collar rather than a collar which has been upset by marking during secondary machine operations utilized to install the flutes. The recess portion of the collar is present so that the collet may adequately grasp the collar for further machining operations on the flutes. If the collet were not provided with a significant enough grasping surface then wobble would occur resulting in off center flutes.

26. The leading edge or frustoconical portion of the countersink shape is dictated to have an 82.50 leading edge which is the standard angle for screws. The diameter of the countersinking portion of the countersink is either 3/8 inch or 1/2 inch in diameter. These dimensions are selected to accommodate screws and to accommodate the standard wood plug which can be driven into any hole and sanded down so that the placement of a screw is invisible. The standard size wood plugs in the industry are 3/8 inch and 1/2 inch in diameter.

27. The relief behind the leading edge of the flute section of the countersink is provided so that the tool is not dragging against the wood as it is inserted during drilling operations. If the 1/2 inch or 3/8 inch diameter extended over the entire length of the countersink, it would bind and drag against the walls during use. It is standard in the industry to have a short length for a cutting edge and to provide a relief or smaller diameter behind the leading edge. The leading edge is called the land. Examination of a standard drill bit will reveal the recess portion behind the land leading edge.

27. The use of two flutes provides the countersink with a balanced cut. The utilization of three flutes results in one more machine operations during the manufacturing process which unnecessarily removes stock from the flute section. The placement of two flutes is the most economical method to machine the part, providing a balanced cut. The inclusion of either three or four flutes in a countersink results in the withdrawal of too much material, thereby weakening the part, and by additionally requires inclusion of two extra cutting steps.

28. The inclusion of a round aperture in the base end of the collar section of the countersink is dictated strictly by manufacturing concerns. It is much more economical to place a round bore into the collar of the countersink than it is to mill or machine a hexagonal bore. In addition, the inclusion of a hex shaped aperture would result in the elimination of one of the boring operations from the multi-spindle screw machine. Therefore, the length of each of the bores

placed through the countersink would need to be increased significantly during the initial steps of the first operation. Attempting to insert too long a bore risks the overheating and breakage of cutting tools. During the manufacturing process it is desirable to perform as short a stroke as possible with respect to the introduction of a bore into raw stock. It is desirable to remove waste chips in order to provide for a truer bore. If one of the steps of the bore were eliminated and replaced with a broach, then only two positions would be available for drilling the hole in the base end of the collar. The inclusion of a broach tends make it wobble, bringing the hole off center. The resulting wobbling would then occur at the point end of the drill bit. The wobble of the drill bit is controlled at the base or shank of the countersink. During the manufacturing process, the bore in the base of the countersink is drilled in two positions. If one of the positions were eliminated and replaced with a hex, the product will be of decreased utility as compared to the current manufacturing process and would result in increased cost. In addition, the inclusion of a hex increases the risk of wobble and of wasted parts and down time.

29. The end of the hex shank to be inserted into the round bore of the countersink is machined to provide a round surface for interaction with the round bore placed in the countersink body. A rounded end for the hex shank is necessary for insertion into a round hole. It is difficult to insert a hex shank into a round hole. In addition, the insertion of a hex shank into a round hex results in only six points of grasping or contact within the interior of the bore. The inclusion

of a round surface on the end of the hex shank is functionally required for insertion into a round hole. This is necessary to obtain a good bearing surface between the hex shank and the body of the countersink.

The set screw affixes the shank second drill bit to the body of the countersink. The utilization of a hex socket with a set screw provides increased torque during tightening of parts. An increased amount of torque may be provided with a hex or allen wrench than is available with a flat head screwdriver without stripping the slot.

31. I have attached to this Affidavit photographs of countersinks which are available in the market place as Exhibit 24. These photographs show the utilization of collar sections, two flutes, black oxide, and hexagonal shapes.

32. Both the Insty-Bit and Snappy drill guides are used for making centered holes where there is a preexisting indentation or aperture. The head is black and has an outwardly facing frustoconical shaped end for placement in a hole in a piece of hardware such as a cabinet door hinge. The shape is necessarily frustoconical because of the bore that extends through the head through which the drill bit travels. The inwardly facing portion of the head is shaped to be retained within the end of the spring.

The color black is dictated by the black oxide treatment which is conventional in the industry and which is most cost efficient. The spring is "steel"

colored in that this is the primary finish that they are furnished. The size, and windings per inch are dictated by the required bias necessary for properly holding the head in place. The length is dictated by the standardized size of the drill bit. The spring must be stiff enough to hold the head in place and to resist the torque of the rotating drill bit. The spring must be flexible enough to allow die spring to compress when the drill bit is being extended through the head to perform the drilling function.

The collar is black which is dictated by the black oxide treatment which is conventional in the industry and which is the most cost efficient treatment available for corrosion prevention. The shape of the collar is dictated purely by functional considerations. The length and diameter of the collar must be large enough to provide sufficient structural strength to the part to support the hex shank, the set screw, the thrust washer, and the drill bit. The length and diameter must be small enough to provide minimal bulkiness, to conserve materials, and to provide for ease of manufacture. The cylindrical shape is standard for rotating tools and is the most cost efficient shape. The selected size is optimal in this regard.

The oval shape recess at the set screw is necessarily created when a conical recess is made on a cylinder. The recess is standard practice to remove burrs on the set screw hole extending into the collar. The size and shape of the shank is functionally dictated by industry standard ANSI 8107.4 which allows the tool to be interchangeable. The use of a hex shank in a round opening, is the most cost efficient means of

manufacture and assembly. The two alternatives, a hex shaft in a hex hole, or a round shaft in a round hole, both have significant drawbacks in manufacturing ease and expense. Manufacturing an accurate hex hole is difficult and more expensive than a circular hole. The shank is machined from hexagonal stock so making the shank round would require additional machining.

The brass color of the brass thrust washer is dictated by the material from which the washer is made--brass. The material brass is utilized because of its properties of providing a low friction bearing surfaces between the drill bit and the washer and between the collar and the washer. The shape and size of the thrust washer is determined by the size of the collar, the size of the drill bit, and the size of the spring. The overall shape of the drill guide is dictated by the way the individual parts assemble and interrelate. The shapes of the individual elements are functional and the combined shape is functional.

FURTHER YOUR AFFIANT SAYS NOTHING except that all matters stated herein are true to your affiant's knowledge and belief and as to those mattes stated on belief, I believe them to be true

Dated: February 16, 1995

EDWARD L. QUIRING

Subscribed and sworn to before me this 16th day of February , 1995

Notary Public My commission expires January 31 2000

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA
THIRD DIVISION

Insty*Bit, Inc.,

Plaintiff

vs.

Civil No. 3-94-1427
Judge Richard H. Kyle
DECLARATION OF
EDWARD L. QUIRING

Poly-Tech Industries, Inc.,

Defendant.

STATE OF MINNESOTA
ss
COUNTY OF HENNEPIN

Edward Quiring declares under penalty of perjury, 28 U.S.C. Sec. 1746, the following:

1. That I am a principal of the above named defendant, Poly-Tech Industries, Inc.

2. I have read the affidavit of Mr. James Wienhold dated March 14, 1995.

3. With regard to paragraph 4 of the Wienhold affidavit, until the National Hardware Show of 1994 Wienhold never attempted to advise us as to which trade shows or woodworking shows we could or should attend. The National Hardware Show of 1994 is the point where the relationship between Poly-Tech

and Insty*Bit disintegrated. The decision as to which shows Poly-Tech would attend had always been made exclusively by Poly-Tech.

4. With regard to paragraph 8 of the Wienhold affidavit, Wienhold told us that if we were able to private label the Insty*Bit products with the Poly-Tech name, that Wienhold would not be able to compete with our sales of Poly-Tech's privately labeled Insty*Bit products.

5. With regard to paragraph 9 of the Wienhold affidavit, Jim Wienhold attended, at our invitation, the National Hardware Show in Chicago, Illinois in 1990. This is a show which is exclusively dedicated to setting up distributors and reps of tools. No tools are sold at this show. We specifically had a sign posted at our Poly-Tech booth at the show indicating that territories were available. Mr. Wienhold was aware of this sign and we specifically discussed it. We were taking names and soliciting distributors and reps in the presence of Wienhold.

6. With regard to paragraph 13, the chuck that was shown to us by Wienhold is totally different functionally, operationally, and in appearance to our patented chuck.

7. With regard to my affidavit dated March 14, 1995, paragraph 5 had a typo in it. It should read as follows:

> To the best of my knowledge none of these sales methods had been previously attempted by Wienhold. We believed we were quite successful in selling our tool line including the Insty*Bit products.

8. That the opinion given by Robert Yunker and James Wienhold that the various plating methods

function the same as the black oxide treatment is incorrect. Plating methods add a significant thickness to the part being plated. For precision machined parts, this can have a significant detrimental effect in assembly and operation. Tolerances are very important with respect to the parts of a quick release chuck. Additionally, plaiting can also flake off, especially when it is used on wear surfaces.

From a machinist standpoint, platings are simply not functionally the same as black oxide treatment.

9. I hereby declare under penalty of perjury that all statements made on information and belief are believed to be true.

EDWARD QUIRING
/S/_____

Executed on March 20, 1995